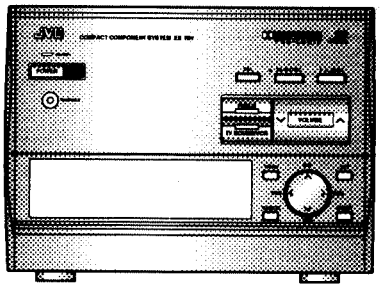
JVC

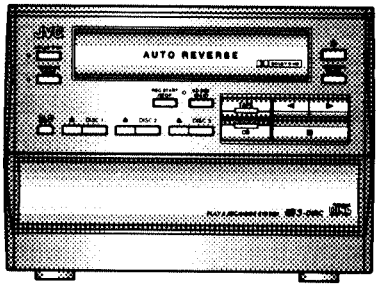
SERVICE MANUAL

COMPACT COMPONENT SYSTEM

CA-TD7

Pick up	OPT-60
CD Lsi	MN35510





Area Suffix

J .... USA
C .... Canada
U .... Universal except all of above

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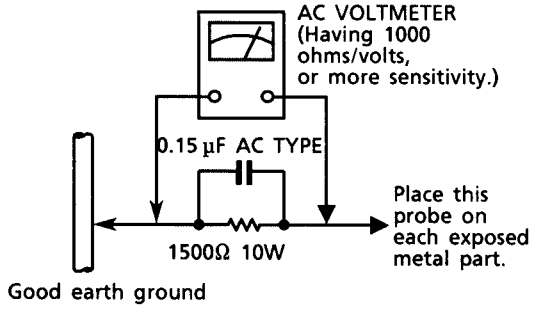
No. 20632
Jul. 1997

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute repalcement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10 W resistor paralleled by a 0.15 µF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor.
     Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Important for Laser Products

1.CLASS 1 LASER PRODUCT

2.DANGER : Invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

3.CAUTION : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

4.CAUTION : The compact disc player uses invisible laserradiation and is equipped with safety switches whichprevent emission of radiation when the drawer is open and the safety interlocks have failed or are de feated. It is dangerous to defeat the safety switches.

5.CAUTION : If safety switches malfunction, the laser is able to function.

6.CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen.

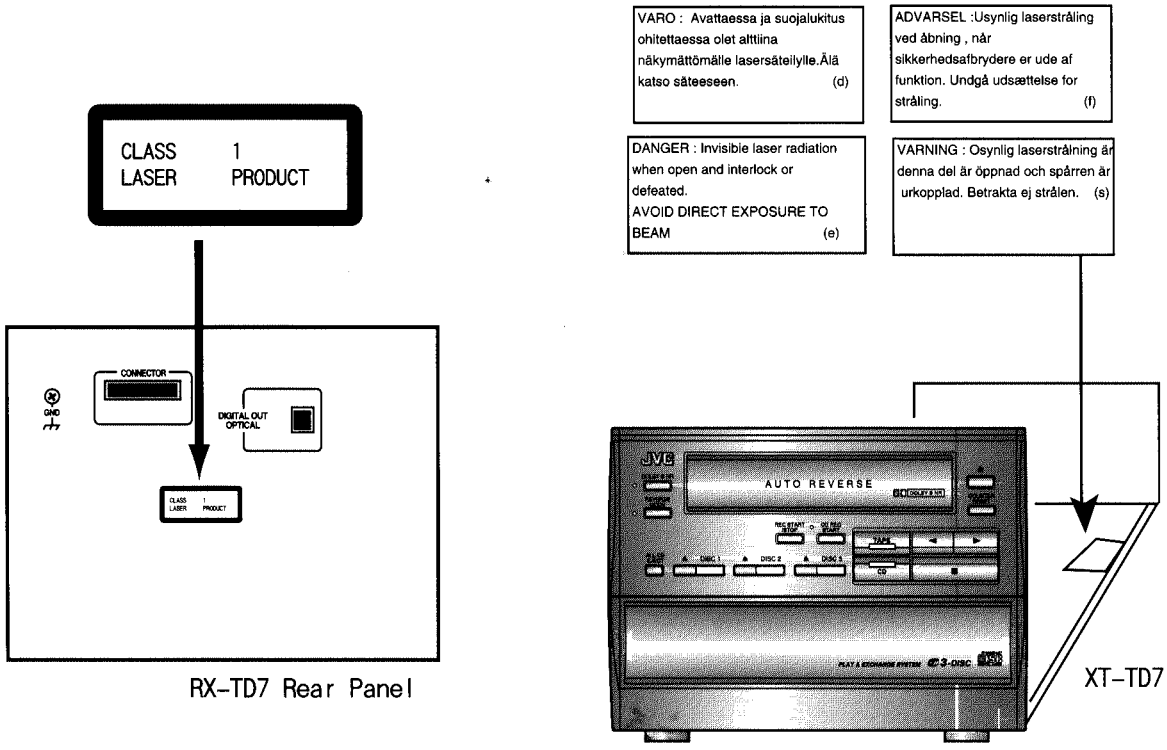
ADVARSEL : Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

ADVARSEL : Usynlig laserstråling ved åpning,når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL

(Exceptforthe U.S.A)


VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen. (d)
ADVARSEL :Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. (f)
DANGER : Invisible laser radiation when open and interlock or defeated.
AVOID DIRECT EXPOSURE TO BEAM (e)
VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen. (s)
CLASS 1
LASER PRODUCT
CONNECTOR
GND
DIGITAL OUT OPTICAL
AUTO REVERSE

RX-TD7 Rear Panel

XT-TD7

JVC

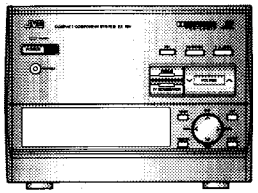
VICTOR COMPANY OF JAPAN, LIMITED

JVC

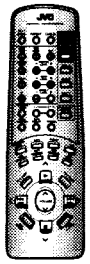
COMPACT COMPONENT SYSTEM

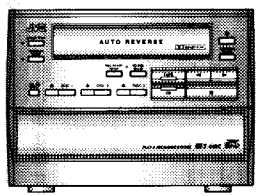
CA-TD7

Consists of RX-TD7 and XT-TD7



RX-TD7





XT-TD7

COMPACT disc DIGITAL AUDIO

INSTRUCTIONS

For Customer Use:
Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. _____

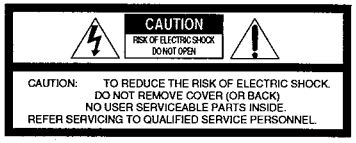
Serial No. _____

EN

0397TNYCREJEM

E30580-2597A
[J]

Warnings, Cautions and Others


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Caution — POWER switch!
Disconnect the mains plug to shut the power off completely. The POWER switch in any position does not disconnect the mains line. The power can be remote controlled.

IMPORTANT FOR LASER PRODUCTS

1. CLASS 1 LASER PRODUCT
2. **DANGER:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION:** Do not open the top cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.

CAUTION

To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

Thank you for purchasing the JVC Compact Component System.
We hope it will be a valued addition to your home, giving you years of enjoyment.
Be sure to read this instruction manual carefully before operating your new stereo system.
Here you will find all the information you need to set up and use the system.
For questions that are not be answered in the manual, please contact your dealer.

Features

3D PHONIC

Here are some of the things that make your CA-TD7 powerful and easy to use.
- The controls and operations have been redesigned to make them very easy to use so you can spend your time listening to music.
  - With the One Touch Operation feature of JVC's COMPU PLAY you can turn on the CA-TD7 and start the radio, the Cassette Deck, or the CD Player with a single touch.
- The three types of surround modes including JVC's 3D PHONIC which allows you a nearly surround effect with only two front speakers.
- To get such great sound from such a compact package the CA-TD7 has:
  - Programmed sound mode includes S.E.A. (Sound Effect Amplifier) effects ROCK, POP, and CLASSIC. You can also register up to three customized settings.
- CD changer function can operate 3 discs.
  - Discs can be changed during play using the TRIPLE TRAY.
  - Continuous, random or program play of 3 discs.
- The three timers, DAILY Timer, ONCE REC (Recording) Timer, and SLEEP Timer are extremely easy to set.
- The Displays are large and clear. They are organized so you can tell at a glance what's happening because functions light up as you use them, and blink to tell you they are ready. They provide some important messages like "NO DISC", and other informations.

How This Manual Is Organized

In this manual we have incorporated some special features:
- Basic information that is the same for many different functions is grouped in one place, and not repeated in each procedure. For instance, in the section on playing a CD, we do not repeat the information about setting the volume and the sound conditions, which are discussed in the Common Operations section.
- Name of buttons and controls are written in all capital letters like this: POWER.
- When we are talking about the Function, rather than the BUTTON or DISPLAY, only the first letter is capitalized.

The manual has a table of contents to help you quickly look up what you want to know.
We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your CA-TD7.

IMPORTANT CAUTIONS

Installation of the Unit
- Select a place which is level, dry and neither too hot nor too cold. (Between 5°C and 35°C or 41°F and 95°F.)
- Leave sufficient distance between the Unit and a TV.
- Do not use the Unit in a place subject to vibrations.

Power cord
- Do not handle the power cord with wet hands!
- Some power (12 watts) is always consumed as long as the power cord is connected to the wall outlet.
- When unplugging the Unit from the wall outlet, always pull the plug, not the power cord.

Malfunctions, etc.
- There are no user serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
- Do not insert any metallic object into the Unit.

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Getting Started

Accessories

Check that you have all of the following items, which are supplied with the CA-TD7.

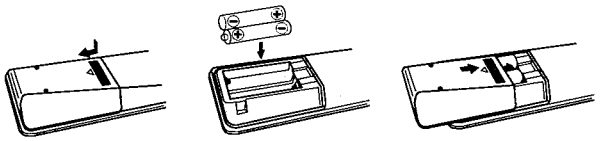
AM Loop Antenna (1)
Remote Control (1)
Batteries (2)
FM Wire Antenna (1)
Extrenal Wire (1)

If any of these items is missing, contact your dealer immediately.

How To Put Batteries In the Remote Control

Match the polarity (+ and –) on the batteries with the + and – markings in the battery compartment.

R6P(SUM-3) /AA(15F)



CAUTION: Handle batteries properly.

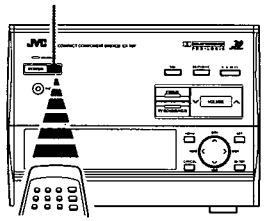
To avoid battery leakage or explosion:

- Remove batteries when the Remote Control will not be used for a long time.
- When you need to replace the batteries, replace both batteries at the same time with new ones.
- Don't use an old battery with a new one.
- Don't use different types of batteries together.

Using the Remote Control

The Remote Control makes it easy to use many of the functions of the CA-TD7 from a distance of up to 7m (23 feet) away.
You need to point the Remote Control at the remote sensor on the CA-TD7's front panel.

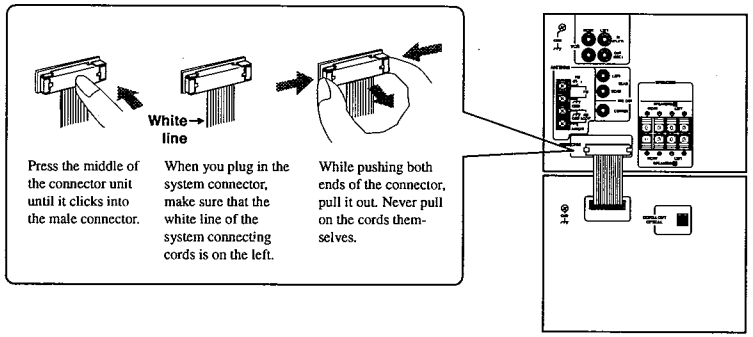
Remote Sensor



CAUTION: Make all connections before plugging the Unit into an AC power outlet.

Connecting the System Control Cord

Connect the components exactly as illustrated below.



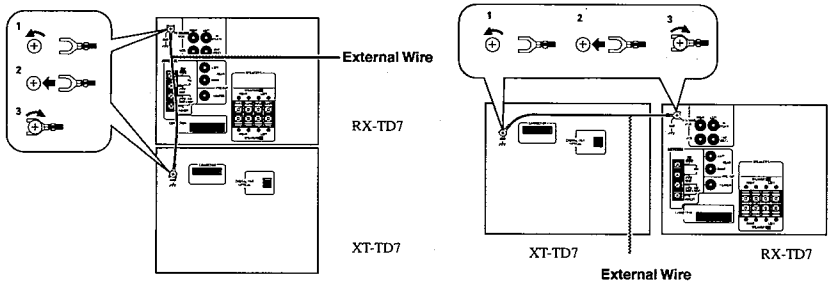
Press the middle of the connector unit until it clicks into the male connector.

When you plug in the system connector, make sure that the white line of the system connecting cords is on the left.

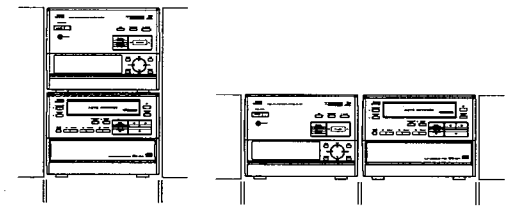
While pushing both ends of the connector, pull it out. Never pull on the cords themselves.

Connecting the External Wire

CAUTION: To prevent malfunction, connect the supplied wire as illustrated below.



Laying Out the System



1cm (7/16") 1cm (7/16") 1cm (7/16") 1cm (7/16") 1cm (7/16")

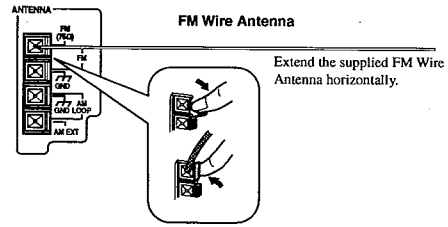
There are two ways to lay out the system, as shown left:

- Leave a space of at least 1 cm (7/16") on both sides of the system and keep the back at least 10 cm (4") from the wall for ventilation.
- If the system does not work or needs repairing, please take all the components with you to the nearest agent.

CAUTION: Make all connections before plugging the Unit into an AC power outlet.

Connecting the FM Antenna

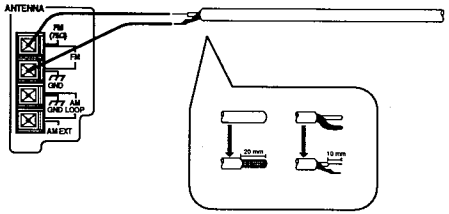
Using the Supplied Wire Antenna



Extend the supplied FM Wire Antenna horizontally.

Using an FM 75-Ohm Antenna Wire (Not Supplied)

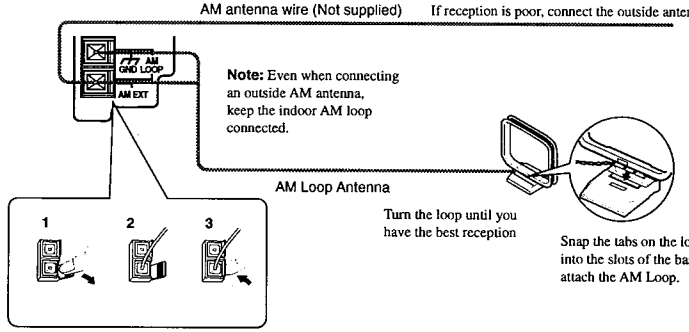
If reception is poor, connect the outside antenna.



Before attaching a 75 ohm coaxial lead (the kind with a round wire going to an outside antenna), disconnect the supplied FM Wire Antenna.

CAUTION: To avoid noise, keep antennas away from metallic parts of the CA-TD7, connecting cord and the AC power cord.

Connecting the AM Antenna


AM antenna wire (Not supplied)
If reception is poor, connect the outside antenna.
AM GND LOOP
AM EXT
Note: Even when connecting an outside AM antenna, keep the indoor AM loop connected.
AM Loop Antenna
Turn the loop until you have the best reception
Snap the tabs on the loop into the slots of the base to attach the AM Loop.
1
2
3

CAUTION: Make all connections before plugging the Unit into an AC power outlet.

Connecting the Speakers

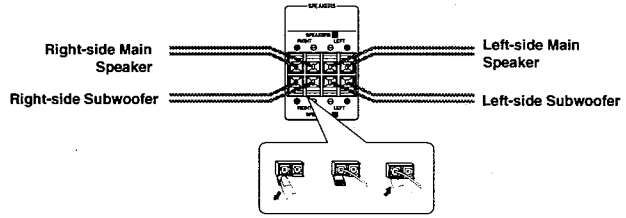
■ Please refer to instructions for speakers as well when you connect speakers.

For each speaker connect one end of the speaker wire to the speaker terminals on the back of the CA-TD7 and one end to the speaker.

1. Open each terminal.

2. Insert the end of the speaker wire as shown (be sure to remove the insulation at the end of each wire first).

3. Close the terminals to clamp the speaker wires firmly in place.



SPEAKERS A

Connect the Main Speakers to the SPEAKERS A terminal on the rear panel as follows.

Connect the gray (+) and the blue (–) terminals of the right-side Main Speaker to the gray (+) and blue (–) terminals marked RIGHT on the rear panel.

Connect the gray (+) and the blue (–) terminals of the left-side Main Speaker to the gray (+) and blue (–) terminals marked LEFT on the rear panel.

SPEAKERS B

Connect the Subwoofers to the SPEAKERS B terminal on the rear panel as follows.

Connect the red (+) and black (–) terminals of the right terminal on the Subwoofer to the red (+) and black (–) terminals marked RIGHT on the rear panel.

Connect the red (+) and black (–) terminals of the left terminal on the Subwoofer to the red (+) and black (–) terminals marked LEFT on the rear panel.

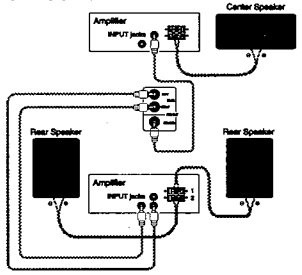
IMPORTANT: Use speakers with the correct impedance only. The correct impedance is indicated on the back panel.

CAUTION: If a TV is installed near speakers, the TV may display irregular colors. In this case, set the speakers away from the TV.

For Dolby Pro Logic Reproduction

For Dolby Pro Logic reproduction, you need a center speaker, two rear speakers, and two amplifiers (for connecting the center and rear speakers).

Connection:

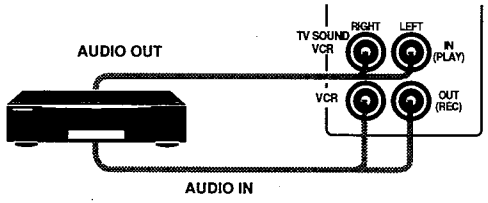


Drive speaker outputs 1 and 2 at the same time.

CAUTION: Make all connections before plugging the Unit into an AC power outlet.

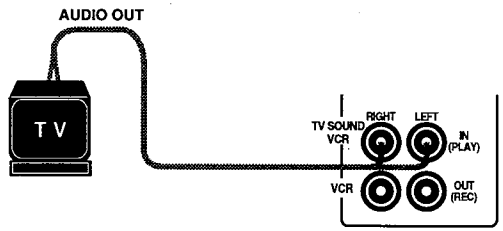
Connecting a VCR

Connect the VCR to the VCR terminal.



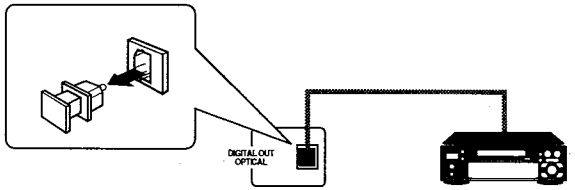
Connecting a TV

Connect a TV to the TV SOUND input terminals.



Connecting the MD Player

You can use a digital fiber-optic cable to connect the MD Player for recording CDs.
Remove the cap from the DIGITAL OUT OPTICAL terminal and connect the digital fiber-optic cable. (Not supplied.)



Now you can plug the AC power cord into the wall outlet, and your CA-TD7 is at your command!

COMPU PLAY

COMPU PLAY

COMPU PLAY is JVC's feature that lets you control the most frequently used functions of the CA-TD7 with a single touch.
One Touch Operation starts playing a CD, turns on the radio, plays a tape, etc. with a single press of the play button for that function. What One Touch Operation does for you is to turn the power on, then start the function you have specified. If the Unit is not ready, such as no CD or tape in place, the Unit still powers on so you can insert a CD or tape.
How One Touch Operation works in each case is explained in the section dealing with that function. The COMPU PLAY buttons are:

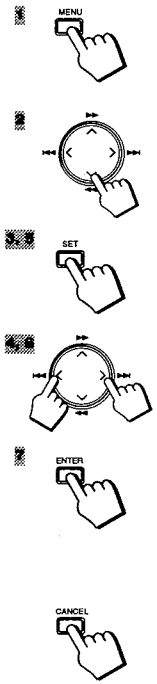
On the Unit

- FM/AM button
- TV SOUND/VCR button
- TAPE button
- CD button
- CD Player DISC 1 to DISC 3 buttons
- CD Player Open/Close (⏏) buttons
- CD Player ALL CD EJECT button
- Cassette Deck Open/Close (⏏) button

On the Remote Control

- DISC 1 to DISC 3 buttons
- TV SOUND/VCR button
- TAPE button
- TUNER button
- CD button

Setting the Clock



The clock should be set before you start using this unit.
If the clock has not been set, "AM 12:00" appears in the display and the CLOCK indicator blinks.
You can set the clock regardless of whether the Unit is on or off.

1 Press the MENU button.
"DAILY " blinks on the display and the TIMER selection indicator lights up.

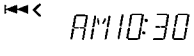
2 Press the ∨ ◄◄ cursor key twice to select "CLOCK".
"CLOCK ADJ " blinks on the display.

3 Press the SET button.
The hour digits on the display blink.

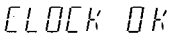
4 Set the hour by pressing the I◄◄ < or > ►►I cursor key.
Pressing the > ►►I cursor key increases the hour, and pressing the I◄◄ < cursor key decreases it.
Pressing down either of these cursor keys adjusts the setting continuously until the key is released.

5 Press the SET button.
The minute digits on the display blink.

6 Set the minute by pressing the I◄◄ < or > ►►I cursor key.
Pressing the > ►►I cursor key increases the minute, and pressing the I◄◄ < cursor key decreases it.
Holding down either of these cursor keys allows you to continuously adjust the minute setting in 10 minute increments until the key is released.



7 Press the ENTER button.
"CLOCK OK" appears on the display and the blinking "CLOCK" indicator disappears. The clock time starts from zero seconds from the set time.

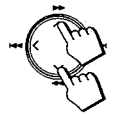


To correct a mistake:

- Repeat the procedure from step 1 after pressing the ENTER key.
- To correct a setting during the procedure, press the CANCEL key to go back to the previous setting item.

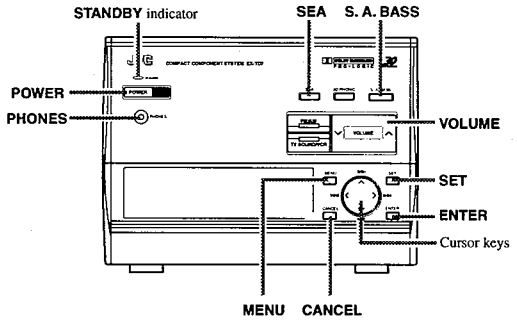
Note: If you try to select DAILY or REC without first setting the clock, "CLOCK" and "ADJUST" are displayed alternately on the display, and you will be unable to set the timers.

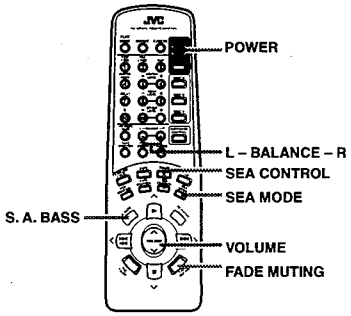
Adjusting the Brightness of the Display



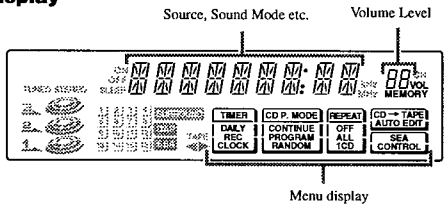
In Standby mode you can adjust the brightness of the clock display.
Press the ►► ∧ cursor key to make the display brighter.
Press the ∨ ◄◄ cursor key to make the display darker.

Common Operations



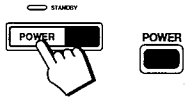


Display



When the CA-TD7 is being used, the display shows other items as well. However, we have only shown the items described in this section.
This illustration shows all the items in the Menu display. However, the menu items that are available will change, depending on the source selected.

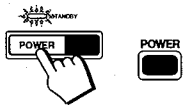
Turning the Power On and Off



Turning the CA-TD7 On

Press the POWER button.

The display comes on and the STANDBY indicator goes out.
The CA-TD7 comes on ready to continue in the mode it was in when the power was last turned off.



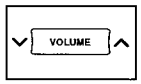
Turning the CA-TD7 Off

Press the POWER button again.

The STANDBY indicator lights up and the display is blank, except for the clock display.

- Some power (12 watts) is always consumed even though power is turned off (called Standby Mode).
- To switch off the Unit completely, unplug the AC power cord from the AC outlet. When you unplug the AC power cord, the clock will be reset to AM 12:00 immediately, and preset Tuner stations will be erased after a few days.

Adjusting the Volume



Using the Unit

To increase the volume, press the right side of the VOLUME button ^.To decrease the volume, press the left side of the VOLUME button v.

Using the Remote Control

To increase the volume, press the up side of the VOLUME button ^.To decrease the volume, press the down side of the VOLUME button v.

- Press the button in steps to adjust the volume level one step at a time, press the button continuously to adjust the level continuously.
- You can adjust the volume level between 0 and 50.
- When the CA-TD7 is turned on from Standby mode, the volume is set to 0 and automatically increases to the previous volume level. To stop this automatic volume adjustment, press the VOLUME button.

For private listening

Connect a pair of headphones to the PHONES jack. No sound comes out of the speakers.
Be sure to turn down the volume before connecting or putting on headphones.

FADE MUTING Function

Set the Volume Level to 0 by pressing the FADE MUTING button on the Remote Control. Press this button again to restore the Volume Level to its previous level.

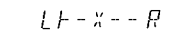
Balance adjustment

You can use the Remote Control to adjust the left and right balance of the speakers.

Press the L – BALANCE – R buttons.

The display changes to show the balance adjustment.

Pressing the L button moves the pointer to the left, pressing the R button moves the pointer to the right. Holding a button down, moves the pointer continuously.



Display when set for no sound from the right speaker. | **Display at the center position.** | **Display when set for no sound from the left speaker.**

- The balance is normally set to the center position.

Note: If no adjustments are made for 4 seconds in balance adjustment mode, the display reverts to the previous display.

Reinforcing the Bass Sound

S.A. (Signal Adaptive) BASS adjusts low tones at low volume to enhance their effect. When the volume level is low, this enhances low tones that are normally difficult to hear and adjusts low tones to a fixed level to reduce low tone distortion.

Press the S.A. BASS button.

The S.A. BASS button lights up.

The display changes with each press of the S.A. (Signal Adaptive) BASS button as shown below.

→ **SA-BASS 1** → **SA-BASS 2** → **OFF** → (back to the beginning)

- SA-BASS 2 enhances low tones more than SA-BASS 1.

To get the effect, press the S.A. BASS button and select SA-BASS 1 or SA-BASS 2. "SA-BASS 1" or "SA-BASS 2" appears in the display and the button indicator lights up.

- When listening to recording with low volume low tones, the difference between SA-BASS 1 and SA-BASS 2 is clear. When listening to recording with louder low tones, however, the difference between SA-BASS 1 and SA-BASS 2 may not be so clear.

To cancel an effect, press the S.A. BASS button until "OFF" appears on the display. The S.A. BASS button indicator goes out.

S.E.A. Mode

The CA-TD7 has some preset sound effects that give you control of the way your music sounds, so you can tailor it for your room and for the quality of the source. We can give you some idea of how each one affects the music, but the only way to really tell is to try them yourself.
You can also create up to three of your own customized S.E.A. (Sound Effect Amplifier) settings and store them in the unit's memory.

■ S.E.A. Mode effects cannot be recorded.

S.E.A. effect modes

ROCK	Boosts low and high frequencies.
POP	Good for vocal music.
CLASSIC	Set for wide and dynamic sound stereo systems.

Selecting a S.E.A. Effect Mode

Press the SEA button (or the SEA MODE button on the Remote Control).
The "SEA" indicator on the display lights up.
The display changes with each press of the button as shown below.

→ROCK →POP→CLASSIC → MANUAL 1 → MANUAL 2 → MANUAL 3 → OFF → (back to the beginning)

■ The name of the effect appears on the display, then returns to the previous display after a few seconds. If you want to see the name of the selected mode, press the SEA MODE button once. The name of the currently selected mode appears on the display for a few seconds.

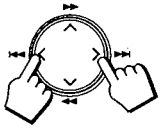
To cancel S.E.A. effect mode, select "OFF". The "SEA" indicator goes out.

Customizing a S.E.A. Effect Mode

You can create up to three of your own customized S.E.A. settings and store them in the unit's memory.

■ You can adjust the level of the LOW, MID, or HIGH tones.
■ You can change an existing sound mode to suit your own preferences by adding your own S.E.A. effects to the existing effect. To create an S.E.A. effect from a flat level, perform the following steps after selecting "OFF" for S.E.A. effect mode.

1. Press the MENU button.
The "TIMER" section of the menu display blinks.

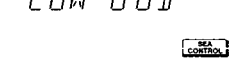


2. Press the cursor key to the right or left (|◄◄ < or > ►►|) and select "SEA CONTROL".
The display changes with each press of the cursor keys as shown below.

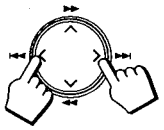
When a CD source is selected:
← Press the left (|◄◄ <) cursor key
↔TIMER ↔ CD P.MODE ↔ REPEAT ↔ AUTO EDIT ↔ SEA CONTROL ↔
Press the right (> ►►|) cursor key →

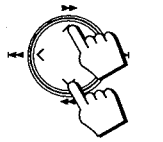
When any other source is selected:
TIMER ↔ SEA CONTROL

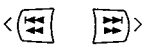
3. Press the SET button.
"LOW 0 dB" blinks on the display.



■ The level for the low tones of the S.E.A. effect appears on the display while the "SEA CONTROL" indicator is lit.







4. Adjust the level of the low (LOW), middle (MID), or high (HIGH) tones.

Using the Unit

1. Select the "LOW", "MID", or "HIGH" tone ranges by adjusting the cursor keys left and right (|◄◄ < or > ►►|).
The display changes with each press of the cursor keys as shown below.

← Press the left (|◄◄ <) cursor key
↔ LOW ↔ MID ↔ HIGH ↔
Press the right (> ►►|) cursor key →

2. Adjust the level of the selected tone range by adjusting the cursor keys up and down (∨ ◄◄ or ►► ∧).
Pressing the ►► ∧ cursor key increases the level in 2dB units, and pressing the ◄◄ ∨ cursor key decreases it in 2dB units.
• You can adjust the level between –6 dB and +6 dB in seven steps.

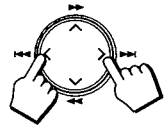
Using the Remote Control

1. Press the SEA CONTROL button.
2. Select the "LOW", "MID", or "HIGH" tone ranges by pressing the < |◄◄ ◄◄ or ►► ►►| > button.
The display changes with each press of the buttons as shown below.

← Press the < |◄◄ ◄◄ button
↔ LOW ↔ MID ↔ HIGH ↔
Press the ►► ►►| > button→

3. Adjust the level of the selected tone range by pressing the ∧ ► or ■ ∨ button.
You can adjust the level between –6 dB and +6 dB in seven steps.

5. Press the SET button.
"MANUAL 1" blinks on the display.



6. Select the number for the MANUAL setting.
Using the Unit
Press the cursor key to the right or left (|◄◄ < or > ►►|) and select the number.
Using the Remote Control
Select the number by pressing the < |◄◄ ◄◄ or ►► ►►| > button.
The display changes with each press of the buttons or cursor keys as shown below.

On the unit:
← Press the left (|◄◄<) button
↔ MANUAL 1↔ MANUAL 2 ↔MANUAL 3 ↔
Press the right (> ►►|) button→

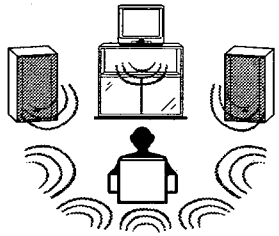
On the Remote Control:
← Press the < |◄◄ ◄◄ button
↔ MANUAL 1↔ MANUAL 2 ↔MANUAL 3 ↔
Press the ►► ►►| > button→

7. Press the ENTER button.
"MEMORY" and the selected memory number are displayed on the screen, and the adjusted settings are stored in memory. After a few seconds, the display reverts to the item that was displayed before you pressed the MENU button.
• The memory setting will appear in the S.E.A. effect mode using the manual number.

■ If you store new settings to a MANUAL number that has already been used, the new settings replace the existing setting.

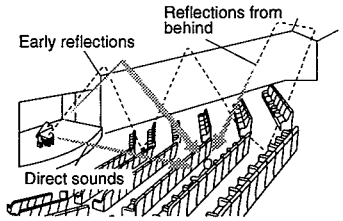
Using the Surround Processor

The Built-in surround processor provides three types of the surround modes — JVC's 3D-PHONIC mode, DAP (Digital Acoustic Processor) mode, and Dolby Pro Logic mode.



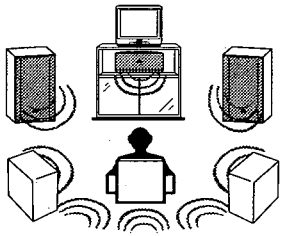
On JVC's 3D-PHONIC Mode

JVC's 3D-PHONIC mode gives you such a nearly surround effect as it is reproduced through the Dolby Surround decoder, which is widely used to reproduce sounds with a feeling of movement like those experienced in movie theaters. JVC's 3D-PHONIC mode is the result of research on sound localization technology carried out at JVC for many years and makes it possible to reproduce the surround sound with only two front speakers.



On DAP Mode

The sound heard in a concert hall or club consists of direct sound and indirect sound — early reflections and reflections from behind. Direct sounds reach the listener directly without any reflection. On the other hand, indirect sounds are delayed by the distances of the ceiling and walls. These direct sounds and indirect sounds are the most important elements of the acoustic surround effects. The DAP mode can create these important elements, and gives you a real "being there" feeling by using the front speakers and rear speakers.

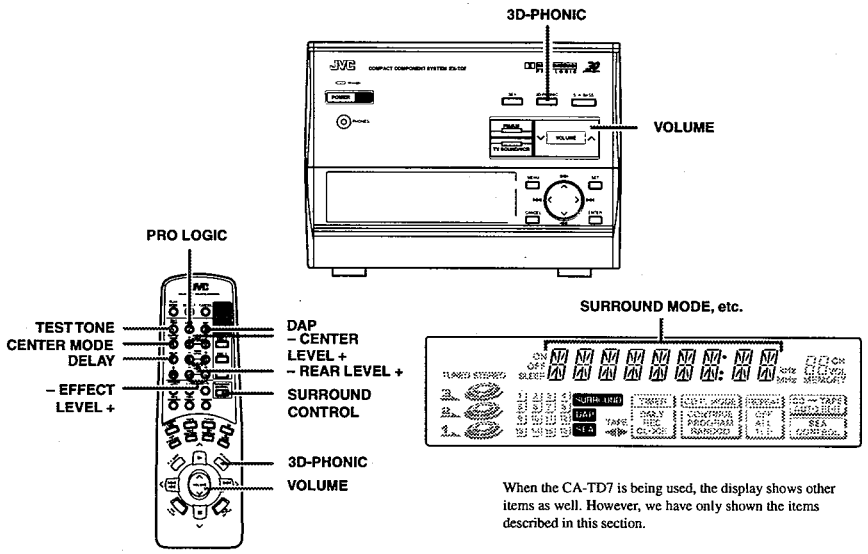


On Dolby Pro Logic Mode

Dolby Pro Logic is a function devised for home use to allow families to enjoy movies and music software bearing DOLBY SURROUND* mark which includes the same encoded surround information as found in Dolby Stereo films. Since Dolby Pro Logic reproduces dialogue from a center speaker independently, emphasizes the movement of sound, and gives you a real "being there" felling.

* Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", the double-D symbol and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.

Notes: • The surround processor has no effect on monaural sources.
• The surround processor cannot be used for recording.



When the CA-TD7 is being used, the display shows other items as well. However, we have only shown the items described in this section.

Playing the Source Using the 3D-PHONIC Modes

When using JVC's 3D-PHONIC modes, you need only two front speakers to reproduce the soundtracks of video software bearing the mark DOLBY SURROUND.
The 3D-PHONIC mode give you a very realistic surround effect when the sound is reproduced through the Dolby Surround decoder.

Perform the following steps using the buttons on the Remote Control.

1 Press the 3D-PHONIC button repeatedly to select the 3D-PHONIC mode you want.
The current 3D-PHONIC mode appears on the display and the 3D-PHONIC button light comes on. Each time you press the button, the 3D-PHONIC mode changes as follows:

→ ACTION → DRAMA → THEATER → OFF → (back to the beginning)

ACTION: Best for action and war movies — where the action is fast and explosive.
DRAMA: Best for dramas and romantic movies — where the action is slow and soft.
THEATER: Reproduces the sound field of a large theater.

2 Press the SURROUND CONTROL button.

3 Press the EFFECT LEVEL + or – button to adjust the effect level.
The current level is shown on the display. Each time you press the button, the level changes as follows:

← Press the EFFECT – button.
EFFECT1 ↔ EFFECT2 ↔ EFFECT3 ↔ EFFECT4 ↔ EFFECT5
Press the EFFECT + button. →

■ As the number increases, the selected 3D-PHONIC mode becomes stronger.

4. Select and play a sound source which was processed with Dolby Surround and is labeled with DOLBY SURROUND mark.

- The effect level can be stored for each mode.
- You can select the 3D-PHONIC mode by pressing the 3D-PHONIC button on the Unit.

Note: The 3D-PHONIC mode is not used with other surround modes. When the 3D-PHONIC mode is turned on, the other surround mode, if used, will be turned off.

To cancel the 3D-PHONIC mode, select "OFF" in step 1 or by pressing the 3D-PHONIC button on the Unit.

Playing the Source Using the DAP Modes

When you listen to music, you can create a more realistic sound field by using the DAP modes. Among the DAP mode, there is one suitable for listening to news.

Perform the following steps using the buttons on the Remote Control.

1. Press the SURROUND CONTROL button.

2. Press the DAP button repeatedly to select the DAP mode you want.

The current DAP mode appears on the display and the DAP indicator lights up.
Each time you press the button, the DAP mode changes as follows:

DAP

→ JAZZ CLUB → SYMPHONY→ NEWS → OFF → (back to the beginning)

JAZZ CLUB:	Reproduces the sound field of a live music club.
SYMPHONY:	Reproduces the sound field of a large concert hall. Best for orchestral music.
NEWS:	Best for watching or listening to news.

3. Press the EFFECT LEVEL + or – button to adjust the effect level.

The current level is shown on the display. Each time you press the button, the level change as follows:

← Press the EFFECT – button.
EFFECT1 ↔ EFFECT2 ↔ EFFECT3 ↔ EFFECT4 ↔ EFFECT5
Press the EFFECT + button. →

- As the number increases, the selected DAP mode becomes stronger.
- The effect level can be stored for each mode.

Note: The DAP mode is not used with other surround modes. When the DAP mode is turned on, the other surround mode, if used, will be turned off.

To cancel the DAP mode, select "OFF" in step 2.

Playing the Source Using Dolby Pro Logic Mode

Preparing the Dolby Pro Logic Reproduction

For connecting the diagram, See page 6 "For Dolby Pro Logic Reproduction".
To use the Dolby Pro Logic mode, you need to prepare the various settings as follows:

Center Speaker Mode

Center Speaker mode contains the following four settings.

PHANTOM:	Select this setting if you have not connected a center speaker. The left and right front speakers project the sound to give the effect of a center speaker.
NORMAL:	Select this setting if you are using a small center speaker. Since the center speaker cannot boost the low tones effectively, this setting uses the front speakers to boost the low tones from the center speaker.
WIDE:	Select this setting if you are using a center speaker that is similar in power to the front speakers.
OFF:	Select this setting to turn off the output for the center speaker.

Delay Time Mode

Delay Time mode contains the following three settings.

DELAY-1:	Select this setting if the rear speakers are further away from your listening position than the front speakers. (Delay time: 15 msec.)
DELAY-2:	Select this setting if the rear speakers and front speakers are about the same distance way from your listening position. (Delay time: 20 msec.)
DELAY-3:	Select this setting if the rear speakers are nearer to your listening position than the front speakers. (Delay time: 25 msec.)

Adjusting the level of the Center Speaker

Adjust the level of the center speaker between +10 and –10. Set the level so that it is about the same as the level from the front speakers.

Adjusting the level of the Rear Speakers

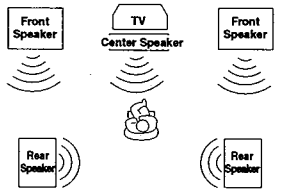
Adjust the level of the rear speakers between +10 and –10. Set the level so that it is about the same as the level from the front speakers.

- You cannot adjust the levels of the left and right rear speakers independently.

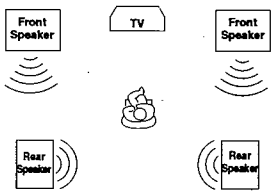
Getting Ready to Use Dolby Pro Logic

Speaker arrangements for Dolby Pro Logic

Layout when using the center speaker and rear speakers



Layout when using the rear speakers



Perform the steps below using the buttons on the Remote Control.

1. Press the SURROUND CONTROL button.

2. Press the PRO LOGIC button.
"PRO LOGIC" appears on the display and the SURROUND indicator lights up.

3. Select the desired Center Speaker mode.
Press the CENTER MODE button. The display changes with each press of the button, as shown below.

→ **NORMAL** → **WIDE** → **OFF**→ **PHANTOM** → (back to the beginning)

4. Select the Delay time.
Press the DELAY TIME button. The display changes with each press of the button, as shown below.

→ **DELAY 1** → **DELAY 2** → **DELAY 3** → (back to the beginning)

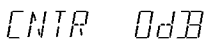
5. Set the volume to the level you normally use.

6. Press the TEST TONE button.
A test tone is emitted in the order shown below.

→ **LEFT** → **CENTER** → **RIGHT** → **REAR** → (back to the beginning)

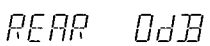
- When "PHANTOM" is selected for Center Speaker mode, the test tone for the center speaker is projected by the front speakers.
- When "OFF" is selected for Center Speaker mode, no test tone is output from the center speaker.

7. Adjust the level for the center speaker.
Press the CENTER LEVEL + or – button. Set the level so that it is about the same as the level from the front speakers.



- You cannot adjust the level for the center speaker if "PHANTOM" or "OFF" is selected for Center Speaker mode.

8. Adjust the level for the rear speakers.
Press the REAR LEVEL + or – button. Set the level so that it is about the same as the level from the front speakers.



9. To cancel Test Tone mode.
Press the TEST TONE button again.
This completes the preparations required for using Dolby Pro Logic.

Note: The Dolby Pro Logic mode is not used with other surround modes. When the Dolby Pro Logic mode is turned on, the other surround mode, if used, will be turned off.

Using the Dolby Pro Logic

1. Press the SURROUND CONTROL button.

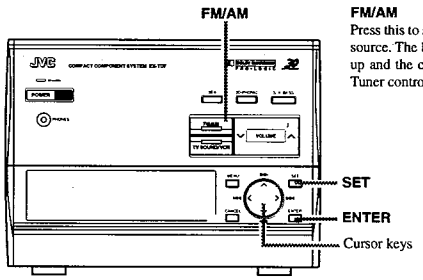
2. Press the PRO LOGIC button to light the SURROUND indicator on the display.
"PRO LOGIC" appears on the display.

3. Start playback from the desired source.
Enjoy the great sound of the Dolby surround processor.

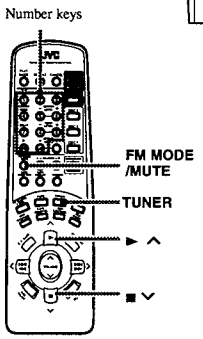
- Use recording that have the DOLBY SURROUND logo.

To cancel the Pro Logic mode, press the PRO LOGIC button after pressing the SURROUND CONTROL button. The SURROUND indicator goes out.

Using the Tuner

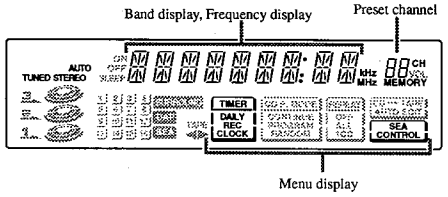


FM/AM
Press this to select the Tuner as the source. The button indicator lights up and the cursor keys operate in Tuner control mode.



TUNER button
Press this button to select the Tuner as the source and switch the Remote Control Tuner control mode.

Display



When the CA-TD7 is being used, the display shows other items as well. However, we have only shown the items described in this section. This illustration shows only the Menu display items for the Tuner.

You can listen to both FM and AM stations. Stations can be tuned in manually, automatically, or from preset memory storage.

■ Before listening to the radio:
- Check that both the FM and AM antennas are firmly connected. (See page 5).

COMPU PLAY

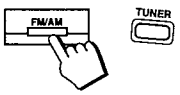
One Touch Radio

Just press the FM/AM button (or the TUNER button on the Remote Control) to turn on the Unit and start playing the most recent station tuned in.

■ You can switch from any other sound source to the radio by pressing the FM/AM button (or the TUNER button on the Remote Control).

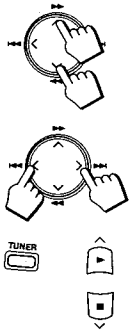
Tuning In a Station

Press the FM/AM button (or the TUNER button on the Remote Control) to turn on the radio.
The Frequency of the previously selected channel appears on the display.



Switching between Frequency Bands

Press the FM/AM button (or the TUNER button on the Remote Control).
Each time you press the button, the band alternates between FM and AM.



Selecting a radio station

Manual Tuning

Press the up and down cursor keys (v ◄◄ or ►► ^) to select the frequency. The frequency changes in one step increments. "TUNED" appears on the display when a signal is found.
Press the up cursor key (►► ^) to increase the frequency and the down cursor (v ◄◄) to decrease it.

Auto Tuning

Keep the up or down cursor key (v ◄◄ or ►► ^) pressed down to change the frequency continuously until a signal is found. "TUNED" will appear on the display when a signal is found. This is called Auto Tuning.

Preset Tuning (possible only after presetting stations)

Using the Unit

Select the a preset channel number by pressing the left and right (I◄◄ < or > ►►I) cursor keys. Press the right cursor key (> ►►I) to increase the preset channel number and the left cursor key (< I◄◄) to decrease it.

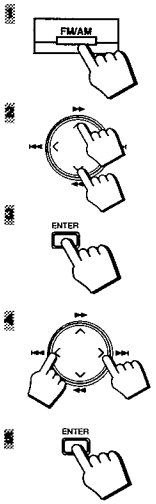
Using the Remote Control

Press the ^ ► or ■ v after pressing the TUNER button to select a preset channel. Press the ^ ► button to increase the preset channel number and the ■ v button to revert to decrease it.

You can use the Remote Control to select a preset channel directly.

1. Press the TUNER button so that you can receive the most recent station tuned in.
2. Select the station by entering the preset channel in the number keys of the Remote Control.
   - Example: for channel 5, press 5. For channel 15, press +10 then 5. For channel 20, press +10, then 10. For channel 32, press +10 three times, then 2.

Presetting Stations



You can store up to 40 of your favorite radio stations (FM and AM) in memory, giving you quick, easy access to the stations.
Note: In some cases, test frequencies have been already memorized for the tuner since the factory examined the tuner preset function before shipment. This is not a malfunction. You can preset the stations you want into memory by following the presetting method.

1. Select a frequency band by pressing the FM/AM button.

2. Press the up or down cursor key (◄◄ v or ^ ►►) to tune to a station.

3. Press the ENTER button .
On the display, "MEMORY" indicator will blink for 5 seconds.
- During these 5 seconds while "MEMORY" indicator is blinking, you can assign a channel number to the station and enter it into the memory.

4. Press the right or left cursor key (I◄◄ < or > ►►I) to select a preset channel number.

5. Press the ENTER button again.
"MEMORY" appears on the display and that station is stored in the selected preset number.

MEMORY

- If a station has been previously stored using the same channel number, this will be erased and the newly selected station will be stored.
- If "MEMORY" in the display goes off, start again from step 3.

6. Repeat steps 1 to 5 for each station you want to store in memory with a preset number.

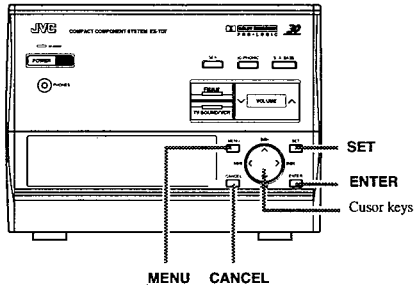
CAUTION: If the Unit is unplugged or if a power failure occurs, the preset stations will be erased after a few days. If this happens, preset the station again.

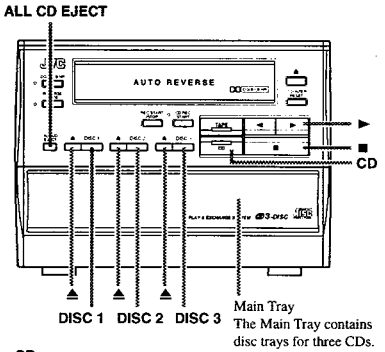
To Change the FM Reception Mode

When an FM stereo broadcast is hard to receive or noisy, press the FM MODE/MUTE button on the Remote Control so that the "AUTO" indicator goes off in the display. Reception improves, but there are no stereo effects. In this monaural mode, noise comes out while tuning in stations (since muting is also cancelled).

To restore the stereo effect, press the FM MODE/MUTE button on the Remote Control so that the "AUTO" indicator lights up. In this stereo mode, no noise comes out while tuning in stations, and you can hear stereo sounds when a program is broadcast in stereo.

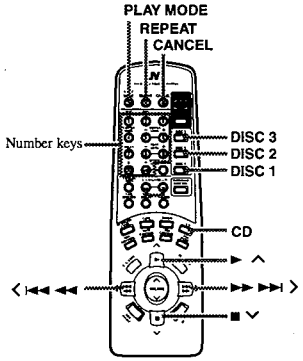
Using the CD Player





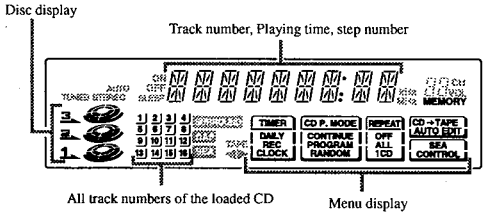
Main Tray
The Main Tray contains disc trays for three CDs.

CD
Press this to select the CD as the playback source. The button indicator lights up and the ► button, ■ button and the cursor keys operate in CD control mode.



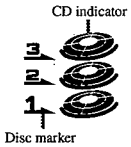
CD button
Press this button to select the CD as the playback source and switch the Remote Control CD control mode.

Display



When the CA-TD7 is being used, the display shows other items as well. However, we have only shown the items described in this section. This illustration shows only the Menu display items for the CD.

DISC button indicator
The buttons DISC 1, DISC 2, and DISC 3 act as indicators for the corresponding trays.
This indicator is off when the CD Player is checking that there is no disc in the disc tray for the selected disc number.
Pressing the ▲ button turns the indicator on.



Disc display
A disc marker lights on the disc display for the disc number you have selected. The CD indicator blinks while a CD is being played.
The CD indicator, for the disc tray corresponding to the "NO DISC" display, goes out.
The CD indicator for the disc tray which is opened with the Main Tray lights up.
The CD indicator for disc that have been played are dimmed slightly compared to discs that have still to be played, or are being played.

The CA-TD7's CD Player has an Automatic Changer with 3 disc trays. You can use Continuous, Random, Program or Repeat Play for the discs in DISC 1, DISC 2 and DISC 3. Repeat Play can repeat all the tracks on all the CD's, the tracks on one of the CD's or one track on one CD. There is also the Tray Lock function, which safely keeps discs in the trays.

Here are the basic things you need to know to play a CD and locate the different selections on it. Each selection is called a track, so when we are talking about locating a track, we are also talking about how you find a certain song or performance.

COMPU PLAY

The Quickest Way To Start a CD Is With the One Touch Operation

The power comes on, and operations are done automatically.

- Press the CD button .
  - If there is a CD in the disc tray of the selected (lit) disc number, playback begins from the first track of that disc.
  - If there is not a CD in the disc tray of the selected disc number, search starts for a disc tray with a CD. If a CD is found, playback begins from the first track of that disc.
  - If there is no CD in any of the disc trays, the message "NO DISC" appears in the display after a few seconds and the disc tray for DISC 1 opens.
- Press a DISC (1 to 3) button .
  - If there is a CD in the disc tray for the disc number you have selected, playback begins from the first track of that disc. If there is no CD in the disc tray, the message "NO DISC" appears in the display after a few seconds and the disc tray opens.
- Press the ALL CD EJECT button.
  - The Main Tray for all the disc trays opens.
- Press the ▲ button.
  - The Main Tray for the disc number corresponding to the number of the ▲ button pressed, opens.

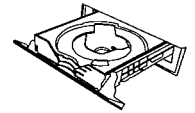
Basics of Using the CD Player — Continuous Play

You can play the discs continuously in the DISC 1 to DISC 3 trays.

To Insert Discs

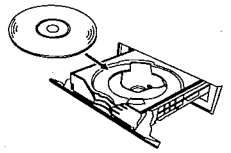
To insert three discs at the same time:

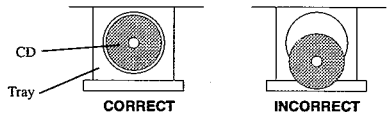
1 Press the ALL CD EJECT button.
The Main Tray for all the disc trays opens.
The disc trays are numbered from the top down; DISC 3, DISC 2, and DISC 1.



2 Insert a CD into the disc tray for DISC 3, with the label face-up.

ATTENTION: To avoid malfunctions when you play a CD, please set the CD in the right place at the center of the tray.





- To put an 8 cm CD into a tray, insert it so that it is aligned with the groove in the tray's center.

3. Push the disc tray for DISC 3 to the back.

Push the disc tray gently to the back using the finger hold on the front right of the tray. The disc tray for DISC 2 will appear below the disc tray for DISC 3.

- Take care not to touch any CDs in the lower trays when pushing the disc tray into the Unit.
- If excessive force is applied to the Main Tray, the Main Tray will closed. Therefore, push the tray gently when you push it back.
- While pushing the disc tray, take care not to touch any buttons on the Unit.

4. Insert a CD into the disc tray for DISC 2 in the same way as for DISC 3.

After inserting the CD, push the disc tray to the back. The disc tray for DISC 1 will appear.

5. Insert CD into the disc tray for DISC 1.

6. Press the ALL CD EJECT button.

The Main Tray returns to its original position.

- "ALL EJECT" appears on the display when the Main Tray is opened, and "ALL CLOSE" appears when it closes.
- If you press the CD or ► button on the Unit (CD button on the Remote Control) instead of the ALL CD EJECT button, the Main Tray is automatically closed and continuous play starts for the lit disc marker. Also, if you press the DISC 1 - 3 buttons, the Main Tray will automatically close and playback will start from that disc.
- If the Main Tray is open when the CA-TD7 switches to standby mode. the Main Tray is closed automatically.

CAUTION: Do not push the disc tray for DISC 1 to the back. If the Main Tray is pushed in with a CD in, the tray will not load properly or may be ejected again after it has been pushed in. This can result in you not being able to use the CD Player. If the CD Player does not respond, disconnect the power cord then reconnect it again. The CD Player will operate normally again.

CAUTION: While closing the Main Tray, take care not to nip any foreign matter (headphone cable, etc.) between the Main Tray cover and the CD Player. If a foreign matter is nipped, the CD Player may be inoperative. In this case, remove it, and push the Main Tray cover to close the Main Tray. Then, the CD Player will operate normally again.

To insert CDs individually:

1. Press the ▲ button on the left of the DISC (1 - 3) button you want to insert the disc into.

The disc tray for the selected disc number is set to the top and the Main Tray opens.

2. Place a CD onto the tray.

3. Press the same ▲ button again.

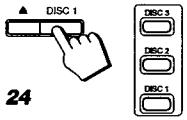
The Main Tray closes.

- If you press a different ▲ button, the Main Tray closes then the disc tray for the ▲ button pressed is opened.
  If you press the ALL CD EJECT button, the Main Tray closes. Then the Main Tray opens again, containing all disc trays.

■ "D1 OPEN" appears on the display when the Main Tray is opened (when disc 1 is selected), and "D1 CLOSE" appears when it closes.

To Play a Disc

This function plays the disc in the Unit continuously, and lights the "CONTINUE" indicator.



1. Prepare the discs.

2. Press the DISC (1-3) button on the Unit or the Remote Control you want to play.

The first track of the selected disc will begin playing.
When the selected disc finishes playing, the next disc will begin playing automatically.
When the last disc has finished playing, the Unit will stop automatically.

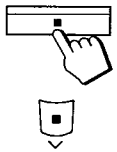
To use Continuous Play from the first track of the disc selected by the disc marker, you do not need to press a DISC (1-3) button, just press the CD or ► button (or CD or ► ^* button on the Remote Control).

* The ► ^ button on the Remote Control can be used to control the CD Player when the Remote Control is in CD mode.

Playing order of discs

- When playback starts from DISC 1, the playing order is DISC 1 → DISC 2 → DISC 3. When DISC 3 has finished, the CD Player selects DISC 1 (the disc marker is on) and stops.
- When playback starts from DISC 2, the playing order is DISC 2 → DISC 3 → DISC 1. When DISC 1 has finished, the CD Player selects DISC 2 (the disc marker is on) and stops.
- When playback starts from DISC 3, the playing order is DISC 3 → DISC 1 → DISC 2. When DISC 2 has finished, the CD Player selects DISC 3 (the disc marker is on) and stops.
  - If any of the disc trays are empty, the CD Player skips that disc tray and continues through the remaining disc trays in the order shown above.

Note: If there is no CD in the disc tray for the DISC (1-3) button you pressed, the message "NO DISC" appears on the display and the tray for that disc is automatically moved to the top and the Main Tray opens. If there is no disc in the disc tray for the selected disc number when the ► or CD button (or the CD or ► ^ button on the Remote Control) is pressed, playback begins from the next disc.



To stop playing the disc, press the ■ button (press the ■ v button after pressing the CD button when using the Remote Control).
To stop play and remove the disc, press the ▲ button for the disc being played or press the ALL CD EJECT button.
To pause, press the ► button. The Disc display will blink. (The Pause function cannot be used with the ► ^ button on the Remote Control.)
To cancel pause, press the ► button again or press the CD button (or the CD or ► ^ button on the Remote Control). Play continues from the point where it was paused.

To Change Discs While Playing

You can replace a CD in a tray not being used, while another CD is playing.

1. Press the ▲ button of the tray not being used.

The disc tray you selected is set to the top and the Main Tray opens.

2. Replace the disc in the tray.

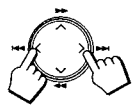
3. Press the same ▲ button again.

The Main Tray closes.

To Select a Track

Using the Unit

Press the cursor key to the right or left (|◄◄ < or > ►►|).

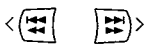


■ Set the tracks by pressing the |◄◄ < or > ►►| cursor key to move between tracks.
  - Pressing the > ►►| cursor key moves to the next track.
  - Pressing the |◄◄ < cursor key moves to the previous track. (Moves to the beginning of the track during playing a track.)

■ Pressing down either of these cursor keys scans the tracks continuously until the key is released.

Using the Remote Control

Press the < |◄◄ ◄◄ or ►► ►►| > button after pressing the CD button.

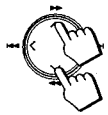


■ Each time you briefly press and release the < |◄◄ ◄◄ or ►► ►►| > button, the track changes by one.
  - Press and release the ►► ►►| > button to go ahead one track at a time.
  - Press and release the < |◄◄ ◄◄ button to go back one track at a time. (Moves to the beginning of the track during playing a track.)

■ Holding down the < |◄◄ ◄◄ or ►► ►►| > button allows you to change tracks continuously.

To Select a Passage Within a Track

Press the up or down cursor key continuously while a CD is playing.



Pressing the up (►► ^) cursor key advances the CD rapidly, pressing the down (v ◄◄) cursor key plays the CD backwards rapidly. Release the cursor key at the point at which you wish to resume normal playback.

Note: You cannot perform these fast forwards or fast backwards operation with the Remote Control.

Locating a Track With the Remote Control Directly

Using the number keys on the Remote Control allows you to go directly to the beginning of any track.

1. Press the DISC (1-3) button for the disc tray containing the track you want to listen to.
- Example: for the third disc, press the DISC 3 button.

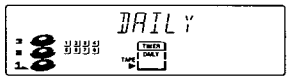
2. Enter the number of the track you want to listen to with the number keys.
The selected track starts playing.
- Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10. For track 32, press +10 three times, then 2.

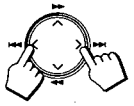
Programming the Playing Order of the Tracks

You can change the order in which the discs and tracks play, and select only the discs and tracks you want from among those loaded in the CD Player.
- You can program up to 32 steps in any desired order from among the discs in the player.
- You can only make or change a program when the CD Player is stopped.

Using the Unit

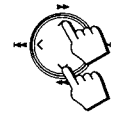
1. In CD mode, press the MENU button.
The TIMER section of the menu display blinks.





2. Press the cursor key to the right or left (|◄◄ < or > ►►|) and select "CD P. MODE".
The menu display changes with each press of the cursor keys as shown below.

← Press the left (|◄◄ <) cursor key
↔ TIMER ↔ CD P.MODE ↔ REPEAT ↔ AUTO EDIT ↔ SEA CONTROL ↔
Press the right (> ►►|) cursor key →

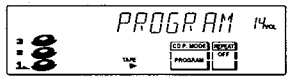


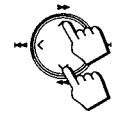
3. Press the cursor key to the up or down (|◄◄ v or ^ ►►) and select "PROGRAM".
The menu display changes with each press of the cursor keys as shown below.

← Press the up (►► ^) cursor key
↔ CONTINUE ↔ PROGRAM ↔ RANDOM ↔
Press the down (v ◄◄|) cursor key →

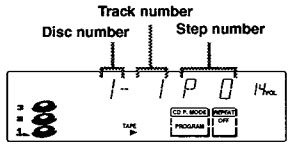
"PROGRAM" appears on the display.

4. Press the SET button.
The blinking "PROGRAM" display changes to a steady display.



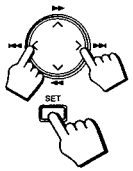


5. Press the cursor key to the up or down (|◄◄ v or ^ ►►) to select the disc.
The display changes to the Program Entry display and the disc number and track number sections blink for a few seconds.
The menu display changes with each press of the cursor keys as shown below.



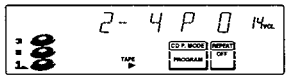
← Press the up (►► ^) cursor key
1 ↔ 2 ↔ 3
Press the down (v ◄◄|) cursor key →

- If you press the DISC (1-3) buttons instead of pressing the up or down (|◄◄ v or ^ ►►|) cursor key, you can select the disc.



- While the display is blinking, perform the operations in steps 6 to 7. When the blinking display changes to the "PROGRAM" display, repeat the operations in steps 5 to 7.

6. Press the cursor key to the right or left (|◄◄ < or > ►►|) to select the track.
The track number appears on the display.



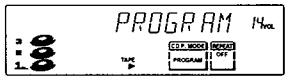
7. Press the SET button.
The blinking disc number and track number changes to a steady light, and the step number is displayed.

8. Repeat steps 5 to 7 to select the other tracks for the program.
- To select another selection from the same disc, repeat the procedure from step 6.

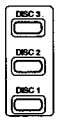
9. Press the ► or CD button.
The Unit plays the selection in the order you have programmed them.

Using the Remote Control

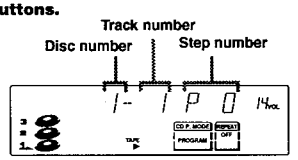
1. Press the PLAY MODE button to select PROGRAM.
"PROGRAM" lights up on the display.
The display changes with each press of the PLAY MODE button as shown below.



→ CONTINUE → PROGRAM → RANDOM → (back to the beginning)

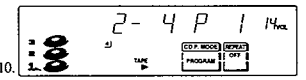


2. Select a disc with the DISC (1-3) buttons.
The display changes to the Program Entry display and the disc number and track number sections blink for a few seconds.



- While the display is blinking, perform the operations in step 3. When the blinking display changes to the "PROGRAM" display, repeat the operations in steps 2 to 3.

3. Press the number keys (1 to 10 and +10) to select the track to program.
- Example: For track 5, press 5. For track 15, press +10 then 5. For track 20, press +10 then 10. For track 32, press +10 three times, then 2.



The blinking disc number and track number changes to a steady light, and the step number is displayed.

4. Repeat steps 2 to 3 to select the other tracks for the program.

5. Press the ► or CD button.
The Unit plays the tracks in the order you have programmed them.

- If you try to program a 33rd track, the CA-TD7 lets you know that the program is full by displaying the message "FULL" on the display.
- If you try to program a disc tray that is empty, or a track number that does not exist on a disc (for example, selecting track 14 on a disc that only has 12 tracks), the selected disc or track are skipped when the program is played.
- You can skip to a particular step in a program during program play. Using the unit, press the right or left (|◄◄ < or > ►►|) cursor key, to this from the Remote Control, press the < |◄◄ ◄◄ or ►► ►►| > button.
- You can also repeat a step in a program. See page 29 "Repeating a Track or the Discs".

To stop playing, press the ■ button.
To delete all the tracks in a program, press the CANCEL button on the Unit repeatedly until all the tracks in the program have been deleted, or press the ALL CD EJECT button.
To exit Program mode, press the PLAY MODE button on the Remote Control and select CONTINUE, or press the MENU button on the Unit and use the cursor keys to select CONTINUE in CD P.MODE.

To Check the Program

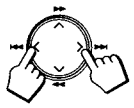
While the CD Player is stopped, use the ⟨I◄◄ ◄◄ or ►► ►►I⟩ button on the Remote Control to check the contents of the program.
Each time you press the ►► ►►I ⟩ button on the Remote Control, the program contents are shown on the display in the programmed order. Pressing the ⟨ I◄◄ ◄◄ button on the Remote Control displays the previous step in the program.

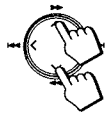
To Modify the Program

Modify the contents of a program while the CD Player is stopped.
Press the CANCEL button on the Unit, the last track in the program is deleted.
Each time you press the button, the last track listed in the program is deleted from the program.
To add a track to the program, follow the procedure above (on either the Unit or the Remote Control). The new tracks are added to the end of the program.

Random Play

The tracks will play in no special order when you use this mode.
■ You can use this mode when the CD Player is stopped.





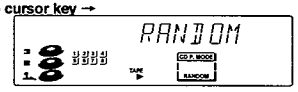
Using the Unit

1. Press the MENU button.
The TIMER section of the menu display blinks.

2. Press the cursor key to the right or left (I◄◄ ⟨ or ⟩ ►►I) and select "CD P.MODE".
The menu display changes with each press of the cursor keys as shown below.

← Press the left (I◄◄ ⟨) cursor key
↔ TIMER ↔ CD P.MODE ↔ REPEAT ↔ AUTO EDIT ↔ SEA CONTROL ↔
Press the right (⟩ ►►I) cursor key →

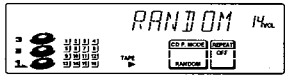
3. Press the cursor key to the up or down (◄◄ ∨ or ∧ ►►) and select "RANDOM".
The menu display changes with each press of the cursor keys as shown below.



← Press the up (►► ∧) cursor key
↔ CONTINUE ↔ PROGRAM ↔ RANDOM ↔
Press the down (∨ ◄◄) cursor key →

"RANDOM" appears on the display.

4. Press the SET button.
The blinking "RANDOM" display changes to a steady display.



5. Press the ► or CD button.
The tracks are played in random order.
When all of the tracks have been played, the CD Player stops.

Using the Remote Control

1. Press the PLAY MODE button to select RANDOM.
"RANDOM" lights up on the display.
The display changes with each press of the PLAY MODE button as shown.

→ CONTINUE → PROGRAM → RANDOM → (back to the beginning)

2. Press the ► ∧ or CD button.
The tracks are played in random order.
When all of the tracks have been played, the CD Player stops.

Note: Press the DISC (1-3) buttons, or the number keys, to cancel Random play and begin playback in Continuous Play mode.

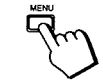
■ To instruct the CD Player to continue with a different random selection after the current setting has finished before starting random play, or while a random selection is playing, see page 29 "Repeating a Track or the Discs".

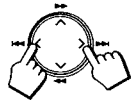
To skip to the next track in the random program, press the ⟩ ►►I cursor key or ►► ►►I ⟩ button on the Remote Control.

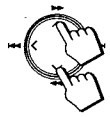
To cancel random play, press the ■ button, then press the PLAY MODE button on the Remote Control to select another mode, or press the MENU button on the Unit and use the cursor keys to select a different mode.

Repeating a Track or the Discs

You can have all the discs, the program or the individual track currently playing repeat as many times as you like.



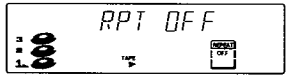




Using the Unit

1. Press the MENU button.
The TIMER section of the menu display blinks.

2. Press the cursor key to the right or left (I◄◄ ⟨ or ⟩ ►►I) and select "REPEAT".
The menu display changes with each press of the cursor keys as shown below.



← Press the left (I◄◄ ⟨) cursor key
↔ TIMER ↔ CD P.MODE ↔ REPEAT ↔ AUTO EDIT ↔ SEA CONTROL ↔
Press the right (⟩ ►►I) cursor key →

3. Press the cursor key to the up or down (◄◄ ∨ or ∧ ►►) and select Repeat mode.
The menu display changes with each press of the cursor keys as shown below.

← Press the up (►► ∧) cursor key
↔ ALL ↔ 1 CD ↔ 1 ↔ OFF ↔
Press the down (∨ ◄◄) cursor key →

ALL: Repeats all the tracks on the CD's in the CD Player, or all the tracks in the program.
1 CD: Repeats all the tracks on one CD.
1: Repeats one track on a CD.

4. Press the SET button.

Using the Remote Control

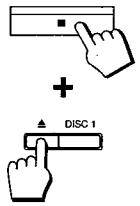
Press the REPEAT button.
The display changes with each press of the button, as shown below.

→ ALL → 1 CD → 1 → OFF → (back to the beginning)

■ "REPEAT ALL" and "REPEAT 1" remain on the display even when you change the CD play mode.
■ The three Repeat Modes above can be selected during Continuous Play, however, during Program Play and Random Play, you can only select REPEAT ALL or REPEAT 1.

To exit Repeat Mode, select "OFF" in step 3.

Tray Lock Function



In order to safely keep the discs in the CD Player, the three trays can be electronically locked in a single operation. When the electronic lock is on, the trays cannot be opened even if the ⏏ or ALL CD EJECT button is pressed.
This function can only be accessed by using the buttons on the Unit itself.

Locking the Electronic Lock

1. **Put the CA-TD7's power into STANDBY mode.**
2. **While pressing the ■ button, press the DISC 1 ⏏ button.**
   "LOCKED" appears on the display to let you know that the trays have been locked.

LOCKED

When the CD Player trays are locked, pressing the ⏏ or ALL CD EJECT buttons displays the message "LOCKED" on the display and the trays do not open. And the ⏏ or ALL CD EJECT button can not be used to automatically turn on the power.

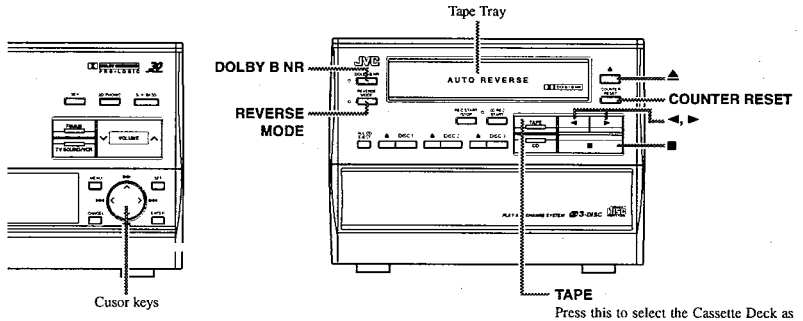
Unlocking the Electronic Lock

1. **Put the CA-TD7's power into STANDBY mode.**
2. **While pressing the ■ button, press the DISC 1 ⏏ button.**
   When the unlock operation is done, "UNLOCKED" appears in the display to show that the lock has been taken off.

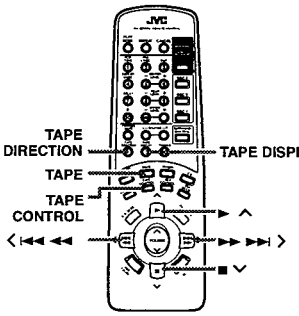
UNLOCKED

The trays can now be opened by pressing the ⏏ or ALL CD EJECT button.
The ⏏ and ALL CD EJECT buttons can also be used to automatically turn on the power.

Using the Cassette Deck (Listening to a Tape)

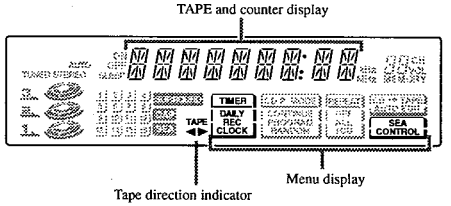


TAPE
Press this to select the Cassette Deck as the playback source. The button indicator lights up and the ◄ and ► buttons and the cursor keys operate in Cassette Deck control mode.



TAPE button and TAPE CONTROL button
Press the TAPE or TAPE CONTROL button to switch the Remote Control to Cassette Deck control mode. You can then use the ❮ |◄◄ ◄◄, ►► ►►| ❯, ■ ∨ and ► ∧ buttons to control the Cassette deck.

Display



When the CA-TD7 is being used, the display shows other items as well. However, we have only shown the items described in this section. This illustration shows only the Menu display items for the Cassette Deck.

The Cassette Deck allows you to play and record audio tapes.

- Most tapes are now recorded with the Dolby NR system, so first check which type of the Dolby NR system has been used on the tape. Only Dolby B NR is incorporated into the CA-TD7.
- With Automatic Tape Detection, you can listen to type I or II tapes without changing any settings.

The use of tapes longer than 120 minutes is not recommended, since characteristic deterioration may occur and these tapes easily jam in the pinch-rollers and the capstans.

COMPUPLAY

One Touch Play

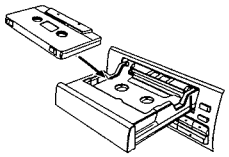
Press the TAPE button (on the Unit or on the Remote Control). Press the ► ∧ button on the Remote Control. (When the Remote Control is in Cassette deck control mode.)

The power comes on and "TAPE" lights up on the display. If there is a tape in the Tape Tray, the tape is automatically played. If there is no tape in the Tape Tray, "OPEN" appears on the display and the Tape Tray opens.

Regular Play

If the power is already on, you can use this basic procedure:

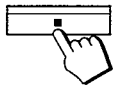
1 Press the ▲ button.
"OPEN" appears on the display and the Tape Tray opens.



2 Insert a tape into the Tape Tray with the tape head at the back.

3 Press the ▲ button again.
"CLOSE" appears on the display and the Tape Tray closes.

4 Press the TAPE button.
The tape is played in the direction shown by the Tape Direction indicator.
- If the Tape Tray is open, it automatically closes and the tape is played when you press the TAPE button.
- If the Cassette Deck is already selected as the playback source, press the ◄ or ► button to play the tape in that direction.
- If the Remote Control is in Cassette Deck control mode, press the ► button on the Remote Control to play the tape in the direction shown by the Tape Direction indicator.



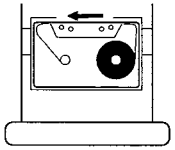
To stop playing, press the ■ button on the Unit or press the ■∨ button on the Remote Control after switching to Cassette deck control mode.
To remove the tape, press the ▲ button. The tape automatically stops and the Tape Tray opens.
To change the direction of playback for the tape, press the ◄ or ► button. If you are using the Remote Control, press the TAPE DIRECTION button.

Tape Direction Indicator and the Display

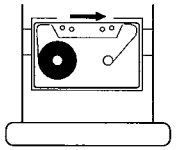
Tape Direction indicator

TAPE ◄►

The Tape Direction indicator shows you which direction the tape is being played in. The direction of playback and the Tape Direction indicator display are shown below.



When the indicator is ►



When the indicator is ◄

■ During playback, the Tape Direction indicator blinks slowly. During fast left or fast right, the indicator blinks quickly. During Music Scan mode, the direction indicator alternates between blinking slowly and quickly repeatedly.

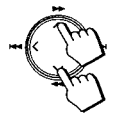
Display

The display includes a tape counter which shows you which direction a tape is being played. The tape counter increases when the tape is playing in the ► direction, and decreases when the tape is played in the ◄ direction.

■ When the Tape Direction indicator shows ►, the counter increases when you fast forward a tape and decreases when you rewind a tape.
When the Tape Direction indicator shows ◄, the counter decreases when you fast forward a tape and increases when you rewind a tape.
■ When the Tape Direction indicator shows ►, the following happens when you do a Music Scan.
- When you scan to the next selection, the counter increases.
- When you scan to the previous selection, the counter decreases.

■ When the Tape Direction indicator shows ◄, the following happens when you do a Music Scan.
- When you scan to the next selection, the counter decreases.
- When you scan to the previous selection, the counter increases.

To reset the tape counter, press the COUNTER RESET button. The counter returns to "0000".



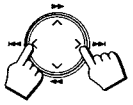
Fast Forward and Rewind

Press the ◄◄ ∨ or ∧ ►► cursor key.

■ When the Tape Direction indicator shows ►, the tape fast forwards when you press the ∧ ►► key and rewinds when you press the ◄◄ ∨ key.
■ When the Tape Direction indicator shows ◄, the tape rewinds when you press the ∧ ►► key and fast forwards when you press the ◄◄ ∨ key.
- When using the Remote Control, press the ❮ I◄◄ ◄◄ or ►► ►►I ❯ buttons while the tape is stopped after pressing the TAPE or TAPE CONTROL button.

Music Scan

To find the beginning of a music selection, use the Music Scan function. Music Scan searches for blank portions that usually separate selections, then plays the next selection.



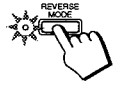
Press the I◄◄ ❮ or ❯►►I cursor key.

■ When the Tape Direction indicator shows ►.
Press the ❯ ►►I button to scan to the previous selection.
Press the I◄◄ ❮ button to scan to the previous selection.
■ When the Tape Direction indicator shows ◄.
Press the I◄◄ ❮ button to scan to the previous selection.
- When using the Remote Control, press the ❮ I◄◄ ◄◄ or ►► ►►I ❯ button while playing or Music Scanning after pressing the TAPE or TAPE CONTROL button.

When you press the left or right cursor keys (I◄◄ ❮ or ❯ ►►I) while the tape is stopped, the unit scans the first part of the selection in the corresponding direction and automatically plays the track.

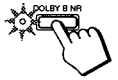
Music Scan works by detecting a 4-second long blank at the beginning of each selection, so it won't work well if your tape has:
- No blank at the beginning of a selection .
- Noise (often caused by much use or poor quality dubbing) which fills the blank with noise.
- Long, very soft passages or pauses in a selection. The scan will detect these as 4-second long blanks. If this happens, just scan again until you reach the selection you want.

Other Useful Features of the Cassette Deck



Reverse Mode

Use Reverse Mode to make the tape automatically reverse at the end of a side and start playing the other side.
Press the REVERSE MODE button to switch Reverse Mode on (the indicator lights up) or off (the indicator goes off).
When the Reverse Mode is set to off (the indicator goes off), the tape stops playing after being played on one side.



DOLBY B NR

Press the DOLBY B NR button to switch Dolby B Noise Reduction on (the indicator lights up) or off (the indicator goes off). If a tape is recorded with the Dolby B NR system, playing it back with the Dolby NR on will reduce tape noise and improve the clarity of the sound.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

To control the Cassette deck while another source is being played

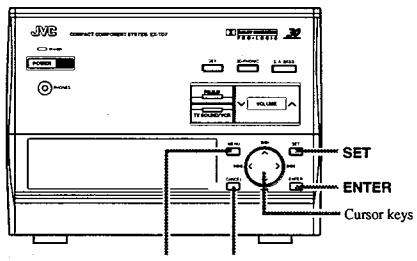
You can use the Remote Control to rewind or fast forward a tape while another source is being played.

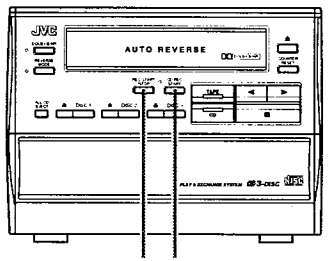
1 Press the TAPE CONTROL button.
The Remote Control switches to Cassette Deck control mode.

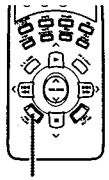
2 Press the ❮ I◄◄ ◄◄ or ►► ►►I ❯ button to rewind or fast forward the tape.

Note: You cannot use any other Cassette Deck controls, apart from fast forward and rewind, while another source is being played.

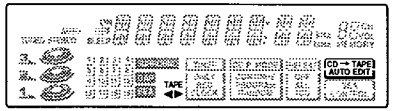
Using the Cassette Deck (Recording)







Display



When the CA-TD7 is being used, the display shows other items as well. However, we have only shown the items described in this section.

Recording onto a cassette from any of the sound sources is simple. Just place a tape in the Tape Tray, have the source ready, make one or two settings, and you're ready to record. For each source the procedure is a little different and now we'll explain just what to do for each one. If you forget, just come back to the section which has the specific procedures you need. But first, here are a few things to make your recordings better.

Things To Know Before You Start Recording

- **It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.**
- Press the DOLBY B NR button — the indicator lights up — to reduce tape hiss.
- When you want to record onto both sides of a tape, you can set Reverse mode on to do so. However, recording automatically stops after recording in the ◄ direction in Reverse mode. Therefore, make sure that the tape direction is ► when recording with Reverse mode on.
- The recording level, which is the volume at which the new tape is being made, is automatically set correctly, so it is not affected by the VOLUME control on the CA-TD7. Thus, during recording you can adjust the sound you are actually listening to without affecting the recording level.

- Two small tabs on the back of the cassette tape, one for side A and one for side B, can be removed to prevent accidental erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with adhesive tape first. However, when a type II tape is used, only cover part of the hole as shown, since the other part of the hole is used to detect the tape type.
- When recording, you can hear SEA and surround processor effects through the speakers or headphones. However, the sound is recorded without SEA and surround processor effects.
- Type I and Type II tapes can be used for recording.

Note: At the start and end of cassette tapes, there is leader tape which cannot be recorded onto. Depending on the recording source, the first part of the recording may be missing because of the leader. When recording CDs or radio broadcasts, to get the beginning of the recording on the tape, first wind on the leader before beginning recording.

CAUTION: If recordings you have made have excessive noise or static, the Unit may be too close to a TV which was on during the recording. Either turn off the TV or increase the distance between the TV and the CA-TD7.

Standard Recording

This is the basic method for recording any source. The CA-TD7 also has special ways for recording CD to tape which save you time and effort, as well as give you some special effects. However, when you need to add a selection to a tape you have made, or are combining selections from several sources on one tape, use the method described below; just substitute the source you want into this procedure, such as a CD or the Tuner. You can also record from VCR or TV with this procedure.

To Record Any Sound Source To Tape

1. **Insert a blank or erasable tape into the Tape Tray. (See page 32.)**
2. **When recording on both sides of a tape, set Reverse Mode to on (the indicator lights up).**
   - If you are recording while Reverse Mode is on, insert the tape so that it will be recorded in the forwards ► direction. (See page 32.)
3. **Check the recording direction for the tape.**
   Check that the Tape Direction indicator is the same as that for the tape in the Tape Tray. If the directions are different, press the ■ button after pressing the ◄ or ► button to set the tape direction. (When using the Remote Control, press the TAPE DIRECTION button to synchronize the tape direction.)
   - If you are recording while Reverse Mode is on, check that the Tape Direction indicator is in the forwards ► direction then press the ■ button. (When using the Remote Control, press the TAPE DIRECTION button so that the Tape Direction indicator is in the ► direction.)
4. **Prepare the source, by, for example, tuning in a radio station, loading CDs, or turning on connected equipment.**

5. **Press the REC START/STOP button.**
   The recording indicator blinks and the CA-TD7 begins to record.

Notes for using Reverse Mode for recording

If you are recording while Reverse Mode is on, the CA-TD7 automatically stops when it reaches the end of the reverse ◄ direction. To record on both sides of a tape, make sure that the recording direction for the tape inserted into Tape Tray is forwards ►, and that the Tape Direction indicator is also forwards ►, before you start recording.

To Pause at Any Time During the Recording

Press the REC PAUSE button after pressing the TAPE CONTROL button on the Remote Control. The Recording indicator changes from a blinking display to a steady display. To continue the recording, press the REC START/STOP button on the Unit. (or the ^ ■ button on the Remote Control.).

To Stop at Any Time During the Recording Process

Press the REC START/STOP (or the ■ v button on the Remote Control.).

Checking the Tape Counter While Recording

You can check the tape counter while you are recording.

Press the TAPE DISPLAY button on the Remote Control while recording.

The display changes from the source display to the counter display for about five seconds.

How to create a blank section on the tape

1. **Select the CD as a source and stop the CD.**
2. **Press the REC START/STOP button, to create a blank section on the tape.**
3. **After you have created a blank space, press the REC START/STOP button again to stop recording.**

CD Direct Recording

Everything on the CD goes onto the tape in the order it is on the CD, or according to the order you have set in a program.

1. Prepare CDs. (See page 23.)
Check that the CD Player is not playing a CD.
- Set the source to CD.

2. Insert a cassette into the Tape Tray to record on.
When you want to record on both sides of a tape, press the REVERSE MODE button to turn Reverse Mode on. Check that the recording direction for the tape and the Tape Direction indicator are correct. (See page 35 "Notes for using Reverse Mode for recording".)

3. Press the CD REC START button.
"CD ♪ ♪ TAPE" appears on the display and the CD Player starts playing the first track to be recorded.

At the end of the tape, the CA-TD7 automatically goes back to the beginning of the last selection and re-records it, this time gently fading out at the end. If you selected the Reverse Mode, the reverse side starts with the last selection on the first side and will be faded out at the end again. (A 10 second blank is created at the beginning of the reverse side.) When the recording is finished, the message "CD REC FINISHED" scrolls by on the display. The CD Player and Cassette Deck stop.

To Stop at Any Time During the Recording Process

Press the REC START/STOP or ■ button.
The recording stops when you press the REC START/STOP button. If you press the ■ button, the unit creates a four second blank section of tape before stopping.

Note: When making SLEEP timer settings while doing CD Direct recording, set the time so that there is enough leeway to finish the recording before the power goes off. If the time is set to about the length of the CD, the power may go off before recording finishes.

For CD Direct Recording using more than one disc, use a blank tape, If you use a prerecorded tape, prerecorded material may not be erased between newly-recorded tracks.

Auto Edit Recording

Using Auto Edit, you can record the CD tracks to fit the tape, so a selection isn't cut off. Auto Edit is one of the best ways to copy all of a CD onto a tape.
Auto Edit programs the CD tracks in numerical order. To prevent the end of the last track on the first side from being cut off, the last track on the first side is selected to fit on the remaining tape length.

1. Prepare the CD or CDs. (See page 23.)
- Set the source to CD and check that the CD Player is not playing a CD.

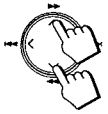
2. Press the MENU button.
The "TIMER" section of the menu display blinks.

3. Press the cursor key to the right or left (|◄◄ < or > ►►|) and select "AUTO EDIT".
The display changes with each press of the cursor keys as shown below.

← Press the left (|◄◄ <) cursor key
↔ TIMER ↔ CD P.MODE ↔ REPEAT ↔ AUTO EDIT ↔ SEA CONTROL ↔
Press the right (> ►►|) cursor key →

- You cannot select AUTO EDIT if a source other than the CD Player is selected.

4. Press the SET button.
"DISC - " blinks on the display.

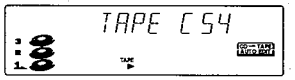


5. Press the cursor key up or down (◄◄ ∨ or ∧ ►►) and select the disc.
The display changes with each press of the cursor keys as shown below.

← Press the up (►► ∧) cursor key
1 ↔ 2 ↔ 3
Press the down (∨ ◄◄) cursor key →

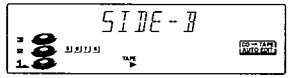
- If you press the DISC (1-3) buttons instead of pressing the up or down (◄◄ ∨ or ∧ ►►) cursor keys, you can select the disc.

6. Press the SET button.
After "TAPE C - -" appears on the display, the display shows you the length of tape required to record the CD you selected.



- You can select a different length of tape, depending on the actual size of the tape you are using, from eleven possibilities programmed into the CA-TD7: 40, 46, 50, 54, 60, 64, 70, 74, 80, 84, 90. Use the |◄◄ < or > ►►| key to select the length that matches the length of tape you will be using, or the length nearest to the length you will be using.
  - If you pick a tape length shorter than the total playing time of the CD, the last tracks on both sides of the tape will be faded out as the tape ends.

7. Press the SET button.
"SIDE-B" blinks on the display and the tracks that will be recorded on side B of the tape are displayed.



- To display the tracks that will be recorded on side A of the tape, press the SET button again.
  The Unit switches between side A and side B with each press of the SET button.

8. Press the ENTER button.

9. Insert a cassette in Tape Tray to record on.
When you want to record on both sides of a tape, press the REVERSE MODE button to turn Reverse mode on.

10. Press the CD REC START button.
The Unit plays the CD and starts recording. If the tape has not been rewound, the Unit rewinds the tape before starting to record the CD.

When the tape is ready, to prevent the start of a track being cut, the CA-TD7 creates a blank period of 10 seconds before it starts to record the CD. While a blank period is being created, "TAPE SIDE-A STANDBY" scrolls through the display. (The CA-TD7 also creates a 10 second blank period at the start of side B of the tape. While a blank period is being created, "TAPE SIDE-B STANDBY" scrolls through the display.)

When the recording is finished, the message "CD REC FINISHED" scrolls by on the display. The CD Player and Cassette Deck stop.

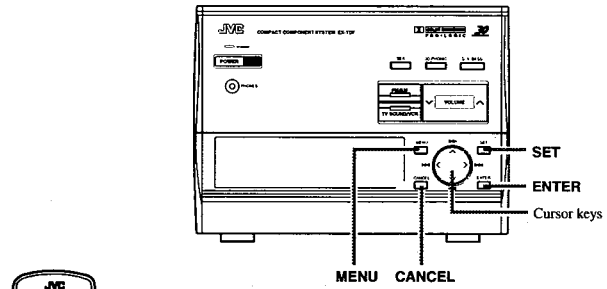
To stop at any time while recording, press the REC START/STOP button or the ■ button. The recording stops when you press the REC START/STOP button. If you press the ■ button, the unit creates a four second blank section of tape before stopping.

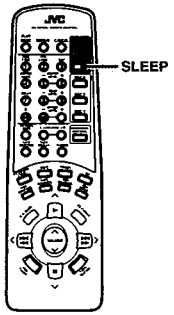
To cancel Auto Edit, press the ▲ button on the CD Player or the ALL CD EJECT button. You can also cancel Auto Edit by selecting play mode from the Unit or the Remote Control after stopping the recording.

Note: If you change any of the CD's while using Auto Edit, Auto Edit will be cancel (l) ed. Therefore, do not change the CD's while using Auto Edit.

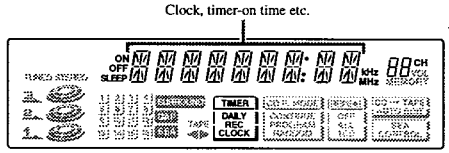
Note: When making SLEEP timer settings while doing Auto Edit recording, set the time so that there is enough leeway to finish the recording before the power goes off. If the time is set to about the length of the CD, the power may go off before recording finishes.

Using the Timer





Display



When the CA-TD7 is being used, the display shows other items as well. However, we have only shown the items described in this section.

The timers lets you control recording and listening functions automatically.
Three types of timers are available:

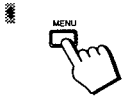
- **DAILY Timer** — Use this timer to set wake up everyday to music from any source, instead of an alarm clock.
- **ONCE REC (Recording) Timer** — Unattended recording of radio broadcasts. You can set the starting time and length of the recording.
- **SLEEP Timer** — Fall asleep and have your CA-TD7 turn off automatically after a certain length of time.

Note: If you try to select a Timer mode without setting the clock, "CLOCK" and "ADJUST" are displayed alternately on the display, and you will be unable to set the timer function. (See page 9 "Setting the Clock".)

Setting the DAILY Timer

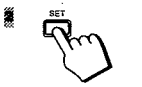
With this timer you can wake up to music from a CD, tape, your favorite radio program, or other source.

- You can set the DAILY Timer whether the Unit is on or off.



1 Press the MENU button.
"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.

DAILY



2 Press the SET button.
The display changes to the On Time display.

ON --:--

TIMER DAILY

3 Set the On Time.

1. Set the hour by pressing the ⏮ < or > ⏭ cursor key.
Pressing the > ⏭ cursor key increases the hour, and pressing the ⏮ < cursor key decreases it. Pressing down either of these cursor keys adjusts the setting continuously until the key is released.

ON AM 7:00

2. Press the SET button.
The minute digits on the display blink.

3. Set the minute by pressing the ⏮ < or > ⏭ cursor key.
Pressing the > ⏭ cursor key increases the minute, and pressing the ⏮ < cursor key decreases it. Pressing down either of these cursor keys adjusts the setting continuously until the key is released.

ON AM 7:15

4. Press the SET button.
The On Time is set and the display changes to the Off Time setting.

4 Set the Off Time.
Use the cursor keys and the SET button to set the Off Time in the same way as for set the ON Time. After the Off Time minute setting has been set, the display changes to source selection display.

5 Select the source you want to listen to.

To use the Tuner as the source.

1. Press the left or right cursor key (⏮ < or > ⏭) until "TUNER" blinks on the display.

TUNER

2. Press the SET button.

3. Press the left or right cursor key (⏮ < or > ⏭) to select the preset channel you want to listen to.
You can only select a station to receive from amongst the preset channels.

FM 88.50 MHz 12CH

4. Press the SET button.
Proceed to step 6.

To use a CD as the source

1. Press the left or right cursor key (⏮ < or > ⏭) until "CD" blinks on the display.

CD

2. Press the SET button.
"DISC - -" blinks on the display.

DISC --

3. Press the left or right cursor key (⏮ < or > ⏭) to select the disc you want to play.
- If you select "DISC - -", the last CD that was played is selected.

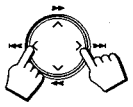
DISC 3

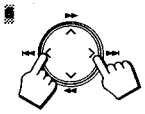
4. Press the SET button.
"TRACK - -" blinks on the display.

TRACK --

5. Press the left or right cursor key (⏮ < or > ⏭) to select the track you want to play.
You can only select up to 20 tracks.
- If you select "TRACK - -", play back starts for the first track of the CD.

TRACK 5





6. Press the SET button.
Proceed to step 6.

To use a Cassette Deck as the source

1. Press the left or right cursor key (⏮ < or > ⏭) until "TAPE" blinks on the display.

TAPE

2. Press the SET button.
Proceed to step 6.

To use another source:
Use this to select a radio station that has not been preset.

1. Press the left or right cursor key (⏮ < or > ⏭) until "– – – –" blinks on the display.

-- -- -- --

2. Press the SET button.
Proceed to step 6.

6. Setting the volume level.
Press the left or right cursor key (⏮ < or > ⏭) to adjust the volume level.

VOLUME A

VOLUME - A: Sets the volume level to 5.
VOLUME - B: Sets the volume level to 12.
VOLUME - C: Sets the volume level to 20.
VOLUME - - : Sets the volume to the last volume setting used.

7. Press the ENTER button.
The "DAILY" indicator changes from a blinking display to a steady display. The ON TIME, OFF TIME, PLAYBACK SOURCE (including the disc number and track number if a CD source is selected) are displayed then the display reverts to the previous display, before the Timer was set. Turn the power off if you made the timer settings with the power turned on.

- If you make a mistake while setting the Timer, press the CANCEL button to return to the previous setting. You can use the CANCEL button to return to the On Time setting.
- A few seconds before the start time for the timer, the CA-TD7 automatically turns on the power and displays "DAILY" and "TIMER" alternately on the display. When the set time is reached, playback starts using the selected source. A few seconds before the end time for the timer. "TIMER" blinks on the display and when the end time is reached the power is automatically turned off again.
- If you change the source while the DAILY timer is running, the timer operation is cancelled.

Before Turning Off the Unit

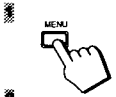
- If the source is a CD, make sure that there is a CD in the selected disc number.
- If the source is a tape:
  - Make sure that there is a tape in the Tape Tray.
  - Check that the tape direction is correct. This is important especially when Reverse Mode is off.
  - Set Reverse Mode on if you want to play both sides of the tape.
- Select the SEA or surround processor mode if you want to listen using a SEA or surround processor effect.

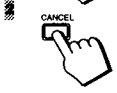
To change the DAILY Timer setting

To change the settings for the DAILY Timer, repeat the setting procedure from the beginning.

Turning the DAILY Timer On and Off

Once the DAILY Timer has been set, it will be activated at the same time every day until the setting is turned off.

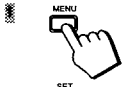


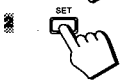


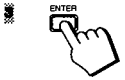
To Turn the DAILY Timer Off

1. Press the MENU button.
"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.

2. Press the CANCEL button.
"DAILY OFF" appears on the display and the DAILY indicator in the TIMER section of the menus goes out.







To Turn the DAILY Timer On Again

1. Press the MENU button.
"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.

2. Press the SET button.

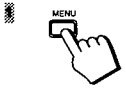
3. Press the ENTER button.
The DAILY indicator in the TIMER section of the menu changes from a blinking display to a steady display. The Timer ON TIME, OFF TIME, PLAYBACK SOURCE (including the disc number and track number if a CD source is selected), and VOLUME LEVEL are displayed on the display.

CAUTION: If the CA-TD7 is unplugged, or a power failure occurs, the timer setting will be erased in a few days. If the settings are erased in this way, reset the timer settings.

Setting the ONCE REC (Recording) Timer

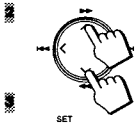
With the Recording Timer you can make a tape of a radio broadcast automatically whether or not you are home. For the timer to work correctly, you need to make sure of the following in addition to setting the time for the Tuner and Cassette Deck to come on:

- You can set the REC Timer whether the Unit is on or off.
- The tape you want to record onto must be in Tape Tray.



1. Press the MENU button.
"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.

DAILY



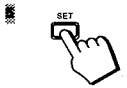
2. Press the up or down cursor key (∨ ◀◀ or ▶▶ ∧) until "REC" blinks on the display.
"ONCE REC" appears on the display and the REC indicator in the "TIMER" section of the menu display blinks.

ONCE REC

3. Press the SET button.
The display changes to the On Time display.

4. Set the On Time and Off Time
Use the ⏮ < or > ⏭ key, and the SET key to set the start and end times in the same way as for the DAILY Timer.
When you press the SET button after setting the Off Time, "TUNER" starts to blink on the display.

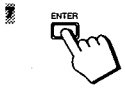
TUNER



5. Press the SET button.
The display changes to the preset channel selection screen.

6. Press the left or right cursor key (⏮ < or > ⏭) to select the preset channel you want to listen to.
You can only select a station to receive from amongst the preset channels.

FM 88.50 MHz 12CH



7. Press the ENTER button.
The "REC" indicator changes from a blinking display to a steady display. The ON TIME, OFF TIME, and preset channel number are displayed then the display reverts to the previous display, before the Timer was set.
Turn the power off if you made the timer settings with the power turned on.

- If you make a mistake while setting the Timer, press the CANCEL button to return to the previous setting. You can use the CANCEL button to return to the On Time setting.
- A few seconds before the start time for the timer, the CA-TD7 automatically turns on the power and display "ONCE REC" and "TIMER" alternately on the screen. When the set time is reached, playback starts using the selected source. A few seconds before the end time for the timer. "TIMER" blinks on the display and when the end time is reached the power is automatically turned off again.

■ If you change the source while the ONCE REC timer is running the timer operation is cancelled.

Before the Timer Starts

■ Check that tape direction is correct. This is important especially when Reverse Mode is off.
■ Set Reverse Mode on if you want to record on both sides of the tape.
■ The VOLUME control is automatically set to 0 when ONCE REC Timer is recording.

It is very easy, and can be very disappointing, to forget to put in a tape, or to accidentally leave a tape in Tape Tray you don't want recorded over. Although this happens to almost everyone at one time or another, we hope it won't happen to you!

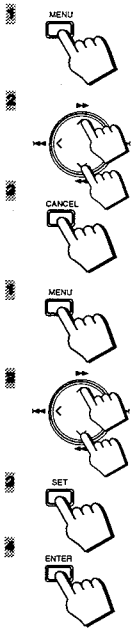
To Change the Recording Timer Setting

To change the settings for the ONCE REC Timer, repeat the setting procedure from the beginning.

Turning the ONCE REC Timer On and Off

Once the ONCE REC Timer has been used to record a source, the setting is maintained but the Timer is set to OFF.

To Turn the REC Timer Off Before the Timer Starts.



1 Press the MENU button.
"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.

2 Press the up or down cursor key (∨ ◀◀ or ▶▶ ∧) until "REC" blinks on the display.
"ONCE REC" appears on the display and the REC indicator in the "TIMER" section of the menu display blinks.

3 Press the CANCEL button.
"REC OFF" appears on the display and the REC indicator in the TIMER section of the menus goes out.

To Record at the Same Time Again.

1 Press the MENU button.
"DAILY" appears on the display and the DAILY indicator in the "TIMER" section of the menu display blinks.

2 Press the up or down cursor key (∨ ◀◀ or ▶▶ ∧) until "REC" blinks on the display.
"ONCE REC" appears on the display and the REC indicator in the "TIMER" section of the menu display blinks.

3 Press the SET button.

4 Press the ENTER button.
The DAILY indicator in the TIMER section of the menu changes from a blinking display to a steady display. The ON TIME, OFF TIME, and preset channel number are displayed then the display reverts to the previous display, before the Timer was set.

CAUTION: If the CA-TD7 is unplugged, or a power failure occurs, the timer setting will be erased in a few days. If the settings are erased in this way, reset the timer settings.

Setting the SLEEP Timer

Use the Sleep Timer to turn the Unit off after a certain number of minutes when it is playing. By setting this timer, you can fall asleep to music and know your Unit will turn off by itself rather than play all night.

■ You can only set the Sleep Timer when the Unit is on and a source is playing.

To set the SLEEP Timer, follow this procedure:

1 With the CA-TD7 on and a source playing, press the SLEEP button on the Remote Control.
The message "SLEEP" appears on the display.

2 Set the length of time you want the source to play before shutting off.

- Each time you press this button while the "SLEEP" indicator is blinking, it changes the number of minutes shown on the display in this sequence:

→ 10 → 20 → 30 → 60 → 90 → 120 → Cancelled → (back to the beginning)

When the number of minutes you want shows on the display, just wait 5 seconds until the "SLEEP" indicator stops blinking, and is lighted steadily.
The Unit is now set to turn off after the number of minutes you set.

To Change the SLEEP Timer Setting

Press the SLEEP button until the number of minutes you want appears on the display.

To Cancel the SLEEP Timer Setting

Press the SLEEP button until the "SLEEP" indicator goes off on the display.
Turning off the Unit also cancels the SLEEP Timer.

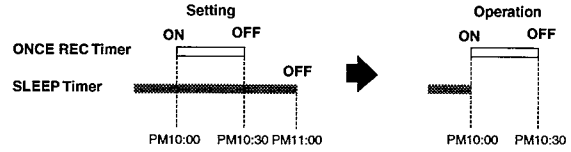
Timer Priority

Since each timer can be set independently, you may wonder what happens if the settings overlap. Here are the priorities for each timer:

■ The ONCE REC Timer always has priority. This means that:
- If another timer is set to come on during a time when the ONCE REC Timer is operating, the other timer just won't come on at all, so you will always get the entire program on tape.
- If the ONCE REC Timer is set to come on while another timer is operating, the other timer will shut off 10 seconds before the ONCE REC Timer is set to turn on, and the ONCE REC Timer will then take over.

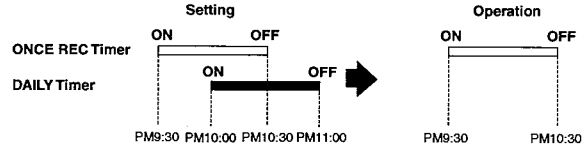
■ The SLEEP Timer has the least priority. This means that if the SLEEP Timer is set while the DAILY Timer is operating, the DAILY Timer settings are cancelled. However, if the DAILY Timer is set to come while the SLEEP Timer is operating, the SLEEP Timer setting will be cancelled and the Unit will use the settings from the DAILY Timer.

Example 1



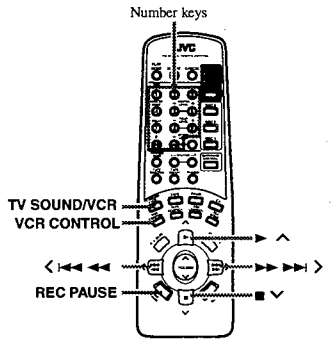
The ONCE REC Timer has priority.

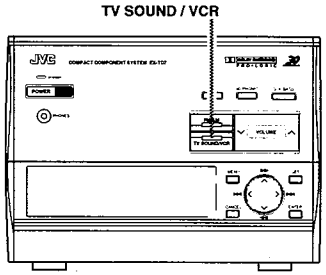
Example 2



The ONCE REC Timer has priority.

Using the VCR or TV





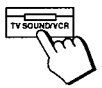
TV SOUND/VCR button and VCR CONTROL buttons
Press the TV SOUND/VCR or VCR CONTROL button to switch the Remote Control to VCR control mode. You can then use the ⟨ ⏮ ◀◀ , ▶▶ ⏭ ⟩, ■ ∨, ▶ ∧ and REC PAUSE buttons to control the VCR.

You can use either VCR or TV as a source for CA-TD7. (See page 7 for connecting diagrams.)

Listening to a VCR or TV

By playing the sound from VCR or TV through the CA-TD7, you can gain control over how the music or program sounds. Once the connected equipment is playing through the CA-TD7, you can apply the SEA or surround processor effect.

■ First make sure that the optional equipment is properly connected to the CA-TD7. (See page 7.)



1. Set the VOLUME control to 0.

2. Press the TV SOUND/VCR button.
The TV/VCR button light comes on.
When CA-TD7 is in Standby mode, the Unit is automatically turned on and "TV/VCR" appears on the display.

TV/VCR

3. Start playing the equipment.

4. Adjust the VOLUME control to the desired listening level.

5. Select the SEA or surround processor mode, if you wish.

To Cancel the Setting
Change the source by starting any one of the CA-TD7's built-in sound sources, such as the Tuner or CD Player.

Recording to a VCR

To record to a VCR, start playback of the recording source of the CA-TD7 and start recording on your VCR. (Refer to the VCR's instruction manual for details on the recording procedure for your VCR.)

■ You cannot record using the SEA or surround processor effect.

Operating a JVC VCR

The Remote Control supplied with CA-TD7 can control JVC VCRs.

When operating a VCR, aim the Remote Control at the remote sensor on the VCR.
Set the remote code of the VCR to A.

You can use the buttons on the Remote Control to operate the following functions.

TV SOUND/VCR ..... Sets the CA-TD7's source to VCR and switches the Remote Control to VCR Control mode.
VCR CONTROL ..... Sets the Remote Control to VCR Control mode but does not set the source to VCR.

▶ ∧ ..... Plays back a video tape.
■ ∨ ..... Stops playback.
⟨ ⏮ ◀◀ ..... Rewinds a video tape.
▶▶ ⏭ ⟩ ..... Fast-forwards a video tape.
Number keys ..... Selects the VCR channel.
To select a 2 digit number, press tenth digit first, then unit digit. The 10 button corresponds to 0.
■ Example : For channel 10, press 1, then 10 (0). For channel 25, press 2, then 5.
REC PAUSE ..... Sets the VCR to record standby mode.

Recording of a JVC VCR

1. Prepare the VCR for recording.
Turn the power on and insert a tape to be recorded.

2. Press the TV SOUND/VCR or VCR CONTROL button to set the Remote Control to VCR mode.

3. Select a desired channel by using the number keys.

4. Press the REC PAUSE button.
The VCR is set to standby mode.

5. Press the ▶ ∧ button.
The VCR starts recording.
To stop the recording, press the ■ ∨ button.
To pause the recording, press the REC PAUSE button. To resume the recording, press the ▶∧ button again.

Operating a JVC TV

The Remote Control supplied with CA-TD7 can control JVC TVs.
When operating a TV, aim the Remote Control at the remote sensor on the TV.

You can use the buttons on the Remote Control to operate the following functions.

TV SOUND/VCR ..... Sets the CA-TD7's source to TV and switches the Remote Control to TV Control mode.
TV/VIDEO ..... Sets the input mode. (either TV or VIDEO)

Note: When you connect a TV to the CA-TD7, you cannot connect a VCR since the same input terminals are used for TV.

Care and Maintenance

Compact Discs

Handle your compact discs, cassette tapes, and Cassette Deck carefully, and they will last a long time.

- Remove the CD from the case by holding it at the edges while pressing the center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.

- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.

- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line, from center to edge.

CAUTION: Do not use any solvent (for example, conventional record cleaner, spray thinner, benzine, etc.) to clean a CD.

Moisture Condensation

Moisture may condense on the lens inside the Unit in the following cases:

- After starting the heating in the room.
- In a damp room.
- If the unit is brought directly from a cold to a warm place.

Should this occur, the Unit may malfunction. In this case, leave the unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

General Notes

In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.

- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the Cassette Deck's tape holder and the CD trays closed when not in use.

Cassette Tapes

- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.

- Do not touch the tape surface.

- Do not store the tape:
  - In dusty places
  - In direct sunlight or heat
  - In moist areas
  - On a TV or speaker
  - Near a magnet

Cassette Deck

- If the heads, capstans, and pinch-rollers of the Cassette Deck become dirty, the following will occur:
  - Loss of sound quality
  - Discontinuous sound
  - Fading
  - Incomplete erasure
  - Difficulty recording
- Clean the heads, capstans and pinch-rollers using a wet-type head cleaning tape, available from an audio store. For more details, refer to the Instructions of the Head Cleaning Tape.
- If the heads become magnetized, the Unit will produce noise or lose high frequencies.
- To demagnetize the heads, turn off the Unit, and use a head demagnetizer (available at electronics and record shops).

Troubleshooting

- If you are having a problem with your CA-TD7, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit has been physically damaged, call a qualified person, such as your dealer, for service.

Symptom	Possible Cause	Action
No sound is heard.	Connections are incorrect, or loose.	Check all connections and make corrections. (See pages 4 - 7.)
Unable to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Poor radio reception	• The antenna is disconnected. • The AM Loop Antenna is too close to the Unit. • The FM Wire Antenna is not properly extended and positioned.	• Reconnect the antenna securely. • Change the position and direction of the AM Loop Antenna. • Extend FM Wire Antenna to the best reception position.
The CD skips.	The CD is dirty or scratched.	Clean or replace the CD.
Unable to operate the Remote Control.	• The path between the Remote Control and the sensor on the Unit is blocked. • The batteries have lost their charge.	• Remove the obstruction. • Replace the batteries.
The CD tray cannot be opened.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	• The built-in microprocessor has malfunctioned due to external electrical interference. • A foreign matter (headphone cable, etc.) is caught by the Main Tray cover.	• Unplug the Unit then plug it back in. • Remove the foreign matter and then push the Main Tray cover by hand to close it.
The cassette door cannot be opened.	During tape playing, the power cord was unplugged.	Plug in the power cord, press the POWER button, and then press the ⏏ button.
WARNING appears in the display.	Problem arised in the Cassette Deck.	Contact your dealer.

Specifications

Amplifier/Tuner Section

Amplifier

Output Power	
SPEAKERS A (Main)	20 watts per channel, min. RMS, driven into 6 ohms from 40 Hz to 20 kHz, with no more than 0.9% total harmonic distortion.
SPEAKERS B (Subwoofer)	30 watts per channel, min. RMS, both channels driven into 3 ohms at 80 Hz, with no more than 10% total harmonic distortion.
Input Sensitivity/Impedance (1 kHz)	
TV SOUND / VCR	400 mV/47 kohms
Output Impedance (1 kHz)	
VCR	6.8 kohms
Preset S.E.A.	3 patterns
Manual S.E.A. Control	±6 dB at 150 Hz (2 dB step)
	±6 dB at 1 kHz (2 dB step)
	±6 dB at 10 kHz (2 dB step)
Speaker terminals	
SPEAKERS A	6 - 16 ohms
SPEAKERS B	3 - 16 ohms

Tuner

FM Tuner	
Tuning Range	87.5 - 108.0 MHz
AM Tuner	
Tuning Range	530 - 1,710 kHz
Dimensions	196 × 145 × 352 mm (W/H/D)
	(7-3/4 × 5-3/4 × 13-7/8 inches)
Mass	5.1 kg (11.3 lbs)

CD Player/Cassette Deck Section

CD Automatic Changer

CD Capacity	3 discs
Dynamic Range	96 dB
Signal-To-Noise Ratio	96 dB
Wow And Flutter	Unmeasurable

Cassette Deck

Frequency Response	
Type II (CrO_2) :	30 - 16,000 Hz
Type I (NORMAL) :	30 - 15,000 Hz
Wow And Flutter	0.09% (WRMS)
Dimensions	196 × 145 × 348 mm (W/H/D)
	(7-3/4 × 5-3/4 × 13-3/4 inches)
Mass	4.2 kg (9.3 lbs)

Accessories

AM Loop Antenna (1)
Remote Control (1)
Batteries R6P (SUM-3)/AA (15F) (2)
FM Wire Antenna (1)
External Wire (1)

Power Specifications

Power Requirements	AC 120 V∿, 60 Hz
Power Consumption	90 watts, 111VA
	12 watts (in standby mode)

Design and specifications are subject to change without notice.

QUALITY **JVC** SERVICE

HOW TO LOCATE YOUR JVC SERVICE CENTER

TOLL FREE : 1-800-537-5722

Dear customer:
In order to receive the most satisfaction from your purchase, read the instruction booklet before operating the unit. In the event that repair is necessary, or for the address nearest your location, please refer to the factory service center list below or within the Continental United States, Call 1-800-537-5722 for your authorized servicer. Remember to retain you Bill of Sale for Warranty Service.

—JVC

JVC SERVICE & ENGINEERING COMPANY OF AMERICA
DIVISION OF US JVC CORP.

FACTORY SERVICE CENTER LOCATIONS

107 Little Falls Road
Fairfield, NJ 07004-2105
(201) 808-9279

1500 Lakes Parkway
Lawrenceville, GA 30243-5357
(404) 339-2522

705 Enterprise Street
Aurora, IL 60504-8149
(708) 851-7855

5665 Corporate Avenue
Cypress, CA 90630-0024
(714) 229-8011

2969 Mapunapuna Place
Honolulu, HI 96819-2040
(808) 833-5828

10700 Hammerly, Suite 110
Houston, TX 77043
(713) 935-9331

230 Eliot Street
Ashland, MA 0172-2377
(508) 881-5923

14505 Commerce Way
Miami Lakes, FL 33016-1512
(305) 362-6252

890 Dubuque Avenue
South San Francisco, CA 94080-1804
(415) 871-2666

Sophisticated electronic products may require occasional service. Just as quality is a keyword in the engineering and production of the wide array of JVC products, service is the key to maintaining the high level of performance for which JVC is world famous. The JVC service and engineering organization stands behind our products.

NATIONAL HEADQUARTERS
JVC SERVICE & ENGINEERING COMPANY OF AMERICA
DIVISION OF US JVC CORP.
107 Little Falls Road
Fairfield, NJ 07004-2105

If you ship the product • • •

Pack your JVC unit in the original carton or one of equivalent size and strength. Enclose, with the unit, a letter stating the problem or symptom that exists and also a copy of the receipt or bill of sale you received when you purchased your JVC unit. Print your home return address on the outside and the inside of the carton. Send to the appropriate JVC Factory Service Center as listed above.

Don't service it yourself.

CAUTION

To prevent electrical shock, do not open the cabinet. No user serviceable parts inside.
Refer servicing to qualified service personnel.

ACCESSORIES

To purchase accessories for your JVC product, you may contact your local JVC Dealer.
Or from the 48 Continental United States call toll free : 800-882-2345

JVC LIMITED WARRANTY AUDIO-1

JVC COMPANY OF AMERICA warrants this product and all parts thereof, except as set forth below ONLY TO THE ORIGINAL PURCHASER AT RETAIL to be FREE FROM DEFECTIVE MATERIAL AND WORKMANSHIP from the date of original retail purchase for the period as shown below. ("The Warranty Period.")

PARTS	LABOR
1YR	1YR

THIS LIMITED WARRANTY IS VALID ONLY IN THE FIFTY(50) UNITED STATES, THE DISTRICT OF COLUMBIA AND IN COMMONWEALTH OF PUERTO RICO.

WHAT WE WILL DO:
If this product is found to be defective, JVC will repair or replace defective parts at no charge to the original owner. Such repair and replacement services shall be rendered by JVC during normal business hours at JVC authorized service centers. Parts used for replacement are warranted only for the remainder of the Warranty Period. All products and parts thereof may be brought to a JVC authorized service center on a carry-in basis except for Television sets having a screen size 25 inches and above which are covered on an in-home basis.

WHAT YOU MUST DO FOR WARRANTY SERVICE:
Return your product to a JVC authorized service center with a copy of your bill of sale. For your nearest JVC authorized service center, please call toll free: (800)537-5722.
If service is not available locally, box the product carefully, preferably in the original carton, and ship, insured, with a copy of your bill of sale plus and letter of explanation of the problem to the nearest JVC Factory Service Center, the name and location of which will be given to you by the toll-free number.
If you have any questions concerning your JVC Product, please contact our Customer Relations Department.

WHAT IS NOT COVERED:
This limited warranty provided by JVC does not cover:
1. Products which have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, or if repaired or serviced by anyone other than a service facility authorized by JVC to render such service, or if affixed to any attachment not provided with the products, or if the model or serial number has been altered, tampered with, defaced or removed;
2. Initial installation and installation and removal for repair;
3. Operational adjustments covered in the Owner's Manual, normal maintenance, video and audio head cleaning;
4. Damage that occurs in shipment, due to act of God, and cosmetic damage;
5. Signal reception problems and failures due to line power surge;
6. Video Pick-up Tubes/CCD Image Sensor, Cartridge, Stylus(Needle) are covered for 90 days from the date of purchase;
7. Accessories;
8. Batteries (except the Rechargeable Batteries are covered for 90 days from the date of purchase);

There are no express warranties except as listed above.

THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MARCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN.

JVC SHALL NOT BE LIABLE FOR THE LOSS OF USE THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion of incidental or consequential damages or limitations on how long an implied warranty last, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

JVC COMPANY OF AMERICA
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41 Slater Drive
Elmwood Park, New Jersey 07407

REFURBISHED PRODUCTS CARRY A SEPARATE WARRANTY, THIS WARRANTY DOES NOT APPLY. FOR DETAILS OF REFURBISHED PRO DUCT WARRANTY, PLEASE REFER TO THE REFURBISHED PRODUCT WARRANTY INFORMATION PACKAGED WITH EACH REFURBISHED PRODUCT.

For customer use:

Enter below the Model No. and Serial No. which is located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

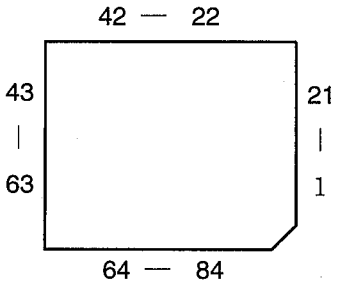
Model No.: _____ Serial No.: _____

Purchase date: _____ Name of dealer: _____

Description of Major ICs

■ MN173222JAAY (IC801) Tuner & Display controller

1.Terminal Layout



2.Key Matrix

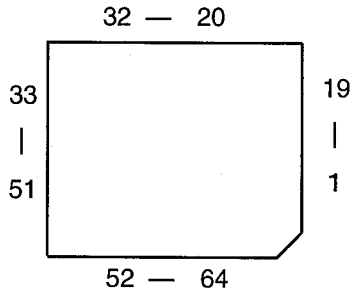
	KEY OUT0	KEY OUT1	KEY OUT2	KEY OUT3	KEY OUT5	KEY OUT6
KEY IN0	POWER	VOLUME ∨	◄◄	MENU	BAND0	RDS
KEY IN1	SEA	VCR	⏮	CANCEL	BAND1	
KEY IN2	3DPHONIC	FM/AM	►►	ENTER		
KEY IN3	BASS	VOLUME ∧	⏭	SET		

3.Description

Pin No.	Symbol	I/O	Function and Operation	Pin No.	Symbol	I/O	Function and Operation
1	S10	O	FL segment control signal	43	CMDT2C	O	Data signal for IC751
2	S9	O	FL segment control signal	44	CMRDYA	I	Ready signal
3	S8	O	FL segment control signal	45	CMCLKA	I	Clock signal
4	S7	O	FL segment control signal	46	CMDT1A	I	Data signal from IC401
5	S6	O	FL segment control signal	47	CMDT2A	O	Data signal for IC401
6	S5	O	FL segment control signal	48	INH	O	Inhibit signal output
7	GND	-	Connected to GND	49	RDSDST	O	Reset signal for IC191
8	GND	-	Connected to GND	50	/TUNED	O	TUNED indication control
9	GND	-	Connected to GND	51	STEREO	O	STEREO indication control
10	13G	O	FL grid control signal	52	TMUTE	O	Tuner mute signal output
11	12G	O	FL grid control signal	53	DCSOUT	O	DCS control signal output
12	11G	O	FL grid control signal	54	DCSIN	I	DCS control signal input
13	10G	O	FL grid control signal	55		-	Connected to GND
14	9G	O	FL grid control signal	56	KI0	I	Key matrix input
15	8G	O	FL grid control signal	57	KI1	I	Key matrix input
16	7G/KO6	O	FL grid control signal/Key matrix out	58	KI2	I	Key matrix input
17	6G/KO5	O	FL grid control signal/Key matrix out	59	KI3	I	Key matrix input
18	5G/KO4	O	FL grid control signal/Key matrix out	60	IFDATA	I	Data from PLL synthesizer
19	4G/KO3	O	FL grid control signal/Key matrix out	61	TCE	O	Chip select terminal input
20	3G/KO2	O	FL grid control signal/Key matrix out	62	TCK	O	Clock for PLL synthesizer
21	2G/KO1	O	FL grid control signal/Key matrix out	63	TDATA	O	Data for PLL synthesizer
22	1G/KO0	O	FL grid control signal/Key matrix out	64	RDSCLK	I	Clock input from IC191
23	-Vpp	-	Power Supply (-Vpp)	65	RDSDATA	I	Data signal from IC191
24	S4	O	FL segment control signal	66	RDSRST	O	Reset signal for IC191
25	S3	O	FL segment control signal	67	FOUT	O	Clock frequency
26	S2	O	FL segment control signal	68	/RESET	I	Reset signal input
27	S1	O	FL segment control signal	69	X1	-	Connected to GND
28		-	Connected to GND	70	X2	-	Non connection
29		-	Connected to GND	71	VSS	-	Connected to GND
30		-	Connected to GND	72	OSC2	I/O	Clock oscillation terminal
31		-	Connected to GND	73	OSC1	I/O	Clock oscillation terminal
32		-	Connected to GND	74	VDD	-	Power supply
33		-	Connected to GND	75		-	Connected to GND
34		-	Connected to GND	76	S19	O	FL segment control signal
35		-	Connected to GND	77	S18	O	FL segment control signal
36		-	Connected to GND	78	S17	O	FL segment control signal
37		-	Connected to GND	79	S16	O	FL segment control signal
38		-	Connected to GND	80	S15	O	FL segment control signal
39		-	Connected to GND	81	S14	O	FL segment control signal
40	CMRDYC	I	Ready signal	82	S13	O	FL segment control signal
41	CMCLKC	I	Clock signal	83	S12	O	FL segment control signal
42	CMDTIC	I	Data signal from IC751	84	S11	O	FL segment control signal

■ HD404019RC87FS (IC401) Amp & DSP controller

1.Terminal Layout

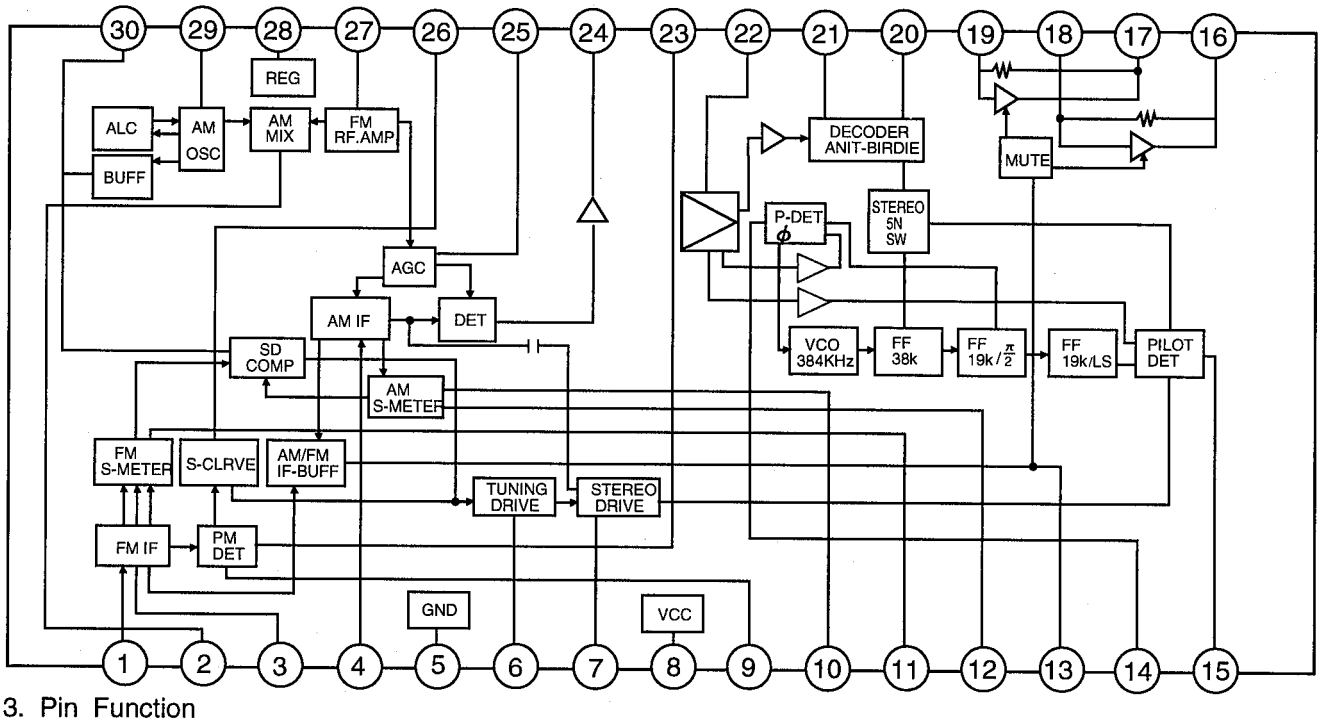


2.Description

Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1		-	Non connection	33	DSCK	O	Clock signal for DSP micon(IC061)
2		-	Non connection	34	DDATA	O	Data signal for DSP micon(IC061)
3	DCSOUT	O	DCS signal output	35	HRS	O	Data frame sync signal for DSP micon(IC061)
4	DCSIN	I	DCS signal input	36	/CS	O	Chip select signal for DSP micon(IC061)
5		-	Connected to GND	37	/RST	O	Reset signal for DSP micon(IC061)
6		-	Connected to GND	38	/MUTE	O	Mute control signal for DSP micon(IC061)
7		-	Connected to GND	39	/EMPTY	I	EMPTY flug input from DSP micon(IC061)
8		-	Connected to GND	40		-	Connected to GND
9		-	Connected to GND	41		-	Connected to GND
10		-	Connected to GND	42		-	Connected to GND
11		-	Connected to GND	43	RESET	I	Reset signal input
12		-	Connected to GND	44	/TEST	-	+5.6V pull up
13		-	Connected to GND	45	OSC	I/O	Osillation terminal
14	SCK1	O	Clock signal output for IC402	46	OSC	I/O	Osillation terminal
15	SDA1	O	Data signal output for IC402	47	GND	-	Connected to GND
16	/RMIN	I	Remoto control signal input	48	SURRON	O	Surrond amp control signal
17		-	Connected to GND	49	POWER	O	Power ON/OFF control
18		-	Non connection	50	SMUTE	O	Source mute signal output
19		-	Non connection	51		-	Connected to GND
20	/PRT	I	Protecter signal input	52		-	Connected to GND
21	/INH	-	Inhibit signal input	53	VSENCE	-	Signal Control
22		-	Non connection	54	SPK	O	Speaker relay ON/OFF control
23	BENA	O		55		-	Connected to GND
24	BDATA	O	Data signal output for IC404	56		-	Connected to GND
25	BCLK	O	Clock signal output for IC404	57		-	Connected to GND
26	Vcc	-	+5.6V	58		-	Connected to GND
27	CMCLKA	O	Clock signal	59	TUNERI	O	TUNER indication signal control
28	CMDT2A	I	Data signal from IC801	60	VCRI	O	VCR indication signal control
29	CMDT1A	O	Data signal for IC801	61	BASSI	O	BASS indication signal control
30	CMRDYA	O	Ready signal	62	3DI	O	3Dphonic indication signal control
31	VRMUTE	O	Main VR mute signal output	63	STDBY	O	STDBY indication signal control
32	STB	-	Strobe signal for IC061	64		-	Non connection

■ LA1837(IC102): FM AM IF AMP&detector, FM MPX Decorder

1. Block Diagram

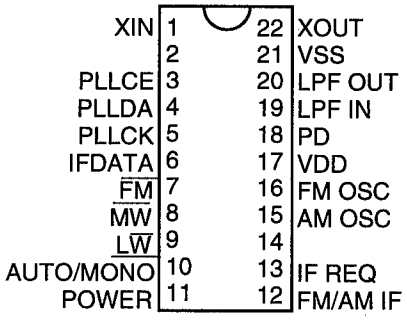


3. Pin Function

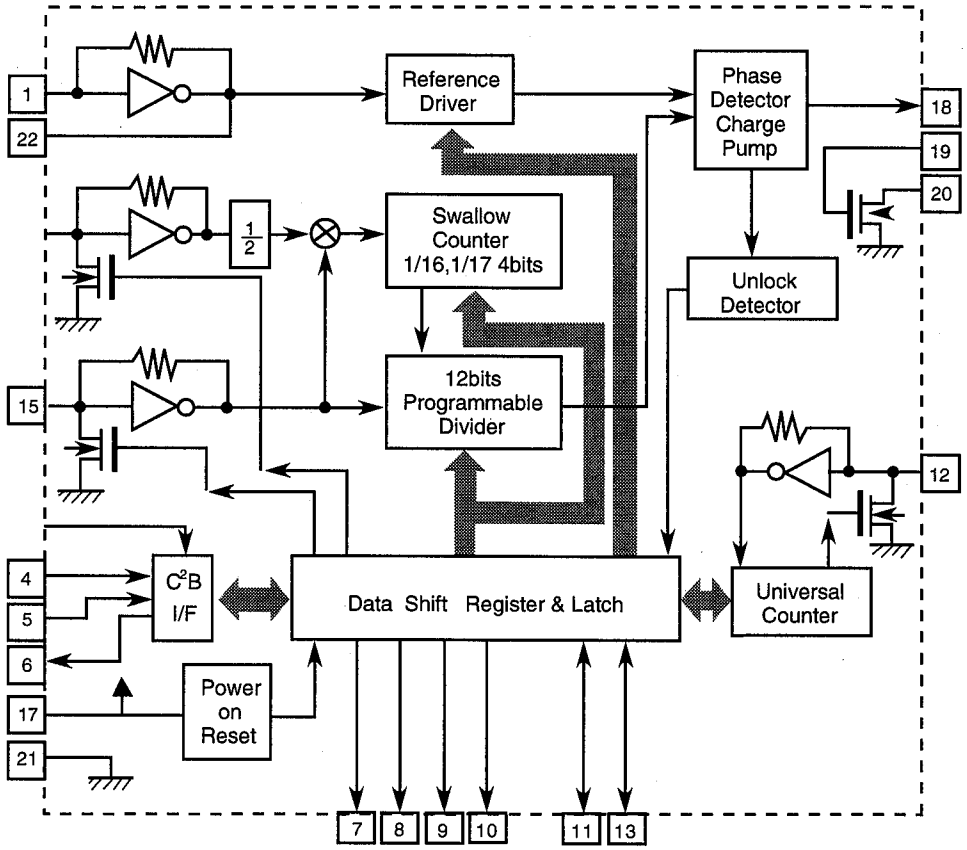
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF signal.	16	L OUT	O	Left channel signal output.
2	AM MIX	O	This is an out put terminal for AM mixer.	17	R OUT	O	Right channel signal output.
3	FM IF	I	Bypass of FM IF	18	L IN	I	Input terminal of the Left channel post AMP.
4	AM IF	I	Input of AM IF Signal.	19	R IN	I	Input terminal of the Right channel post AMP.
5	GND	—	This is the device ground terminal.	20	RO	O	Mpx Right channel signal output.
6	TUNED	O	When the set is tunning,this terminal becomes "L".	21	LO	O	Mpx Left channel signal output.
7	STEREO	O	Stereo indicator output. Stereo "L", Mono: "H"	22	IF IN	I	Mpx input terminal
8	VCC	—	This is the power supply terminal.	23	FM OUT	O	FM detection output.
9	FM DET	—	FM detect transformer.	24	AM DET	O	AM detection output.
10	AM SD	—	This is a terminal of AM ceramic filter.	25	AM AGC	I	This is an AGC voltage input terminal for AM
11	FM VSM	O	Adjust FM SD sensitivity.	26	AFC	—	This is an output terminal of voltage for FM-AFC.
12	AM VSM	O	Adjust AM SD sensitivity.	27	AM RF	I	AM RF signal input.
13	MUTE	I/O	When the signal of IF REQ of IC121(LC72131) appear, the signal of FM/AM IF output. //Muting control input.	28	REG	O	Register value between pin 26 and pin28 desides the frequency width of the input signal.
14	FM/AM	I	Change over the FM/AM input. "H" :FM, "L" : AM	29	AM OSC	—	This is a terminal of AM Local oscillation circuit.
15	MONO/ST	O	Stereo : "H", Mono: "L"	30	OSC BUFFER	O	AM Local oscillation Signal output.

■ LC72131(IC121):PLL Synthesizer

1. Terminal Layout



2. Block Diagram

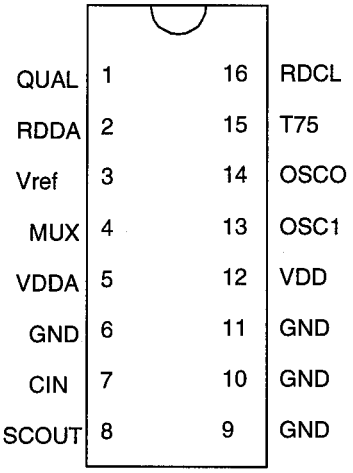


3.Pin Functions

Pin No.	Symbol	I/O	Functions	Pin No.	Symbol	I/O	Functions
1	Xin	I	Crystal oscillator (7.2MHz).	12	FM/AM IF	I	Universal counter input
2		--	Not nse	13	IF REQ	O	Output the "IF-signal request" to IC102
3	PLLCE	I	Fix the chip enable to "H" when inputting (DI) and outputting (DO) the serial data	14		I	Not use
4	PLLDA	I	Receive the control data from the controller (IC801).	15	AMOSC		Input the local oscillator signal of AM.
5	PLLCK	I	This clock is used to synchronize data when transmitting the data of DI and DO.	16	FM OSC	I	Input the local oscillator signal of FM.
6	IFDATA	O	Transmit the data from LC72131 to the controller which is synchronized with CK.	17	VDD	O	This is a terminal of power supply.
7	$\overline{FM}$	O	It is "L" on FM mode.	18	PD	O	PLL charge pump output : When the local oscillator signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output.When it is same as reference frequency signals, it will be floating.
8	$\overline{MW}$	O	It is "L" on MW mode.	19	LPF IN	I	Transistor used for the PLL active low-pass filterr
9	$\overline{LW}$	O	It is "L" on LW mode.	20	LPF OUT	O	Transistor used for the PLL active low-pass filterr
10	AUTO $\overline{MONO}$	O	It is "L" on monaural, "L" on auto	21	VSS	--	Connected toGND
11	POWER	O	Regulator control signal P ON "H" , STANDBY "L"	22	X out	O	Crystal oscillator(7.2MHz).

■ SAA6579(IC192) Radio data system demodulator

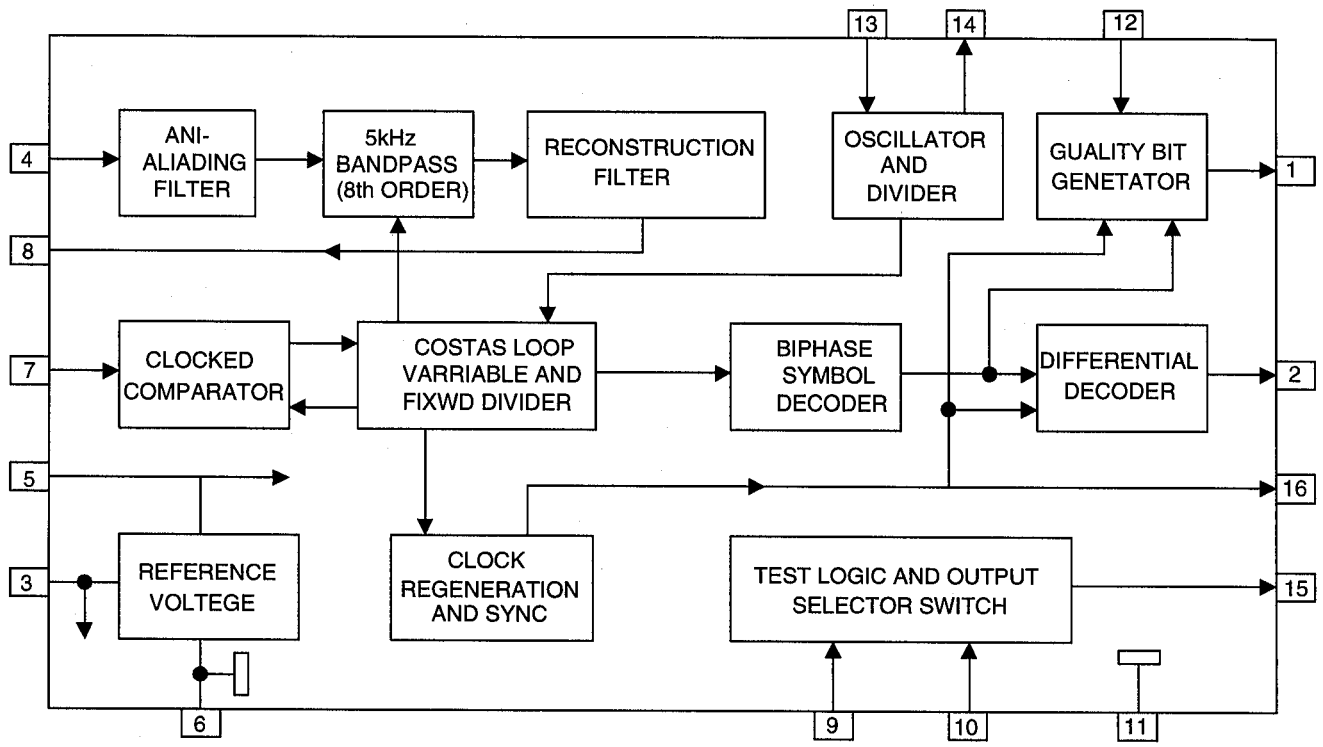
1.Terminal Layout



2.Pin Functiont

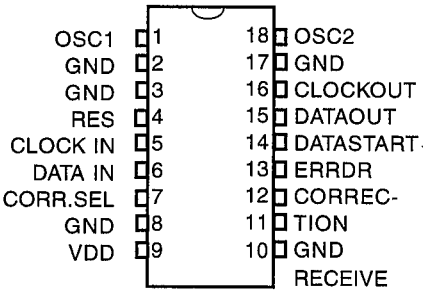
Pin No.	Symbol	I/O	Function
1	QUAL	--	Non connection
2	RDDA	O	RDS data output
3	Vref	O	Reference voltage output
4	MUX	I	Multiplex signal input
5	VDDA	--	+5Vsupply voltage for analog
6	GND	--	Ground for analog part(0V)
7	CIN	I	Subcarrier outputof reconstruction filter
8	SCOUT	O	Ground for digital part(0V)
9	GND	--	Ground for digital part(0V)
10	GND	--	Ground for digital part(0V)
11	GND	--	Ground for digital part(0V)
12	VDD	--	+5Vsupply voltage fordigital part
13	OSC1	I	Oscilator input
14	OSCO	O	Oscilator OUTput
15	T57	--	Non connection
16	RDCL	O	RDS clock output

3.Block Diagram

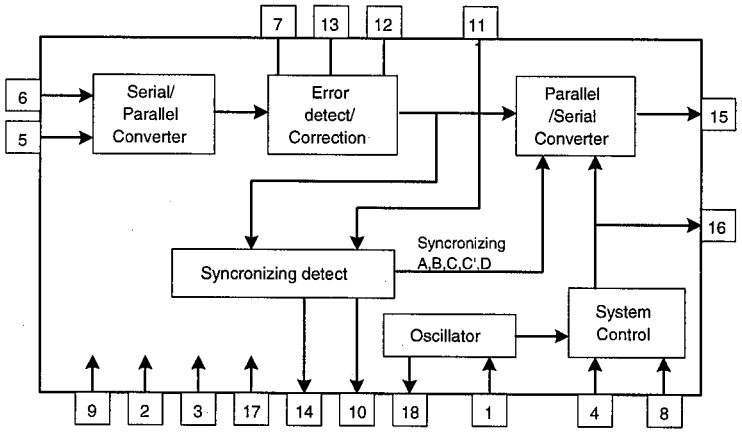


LC7073M (IC191): Radio Data System

1. Terminal Layout



2. Block Diagram

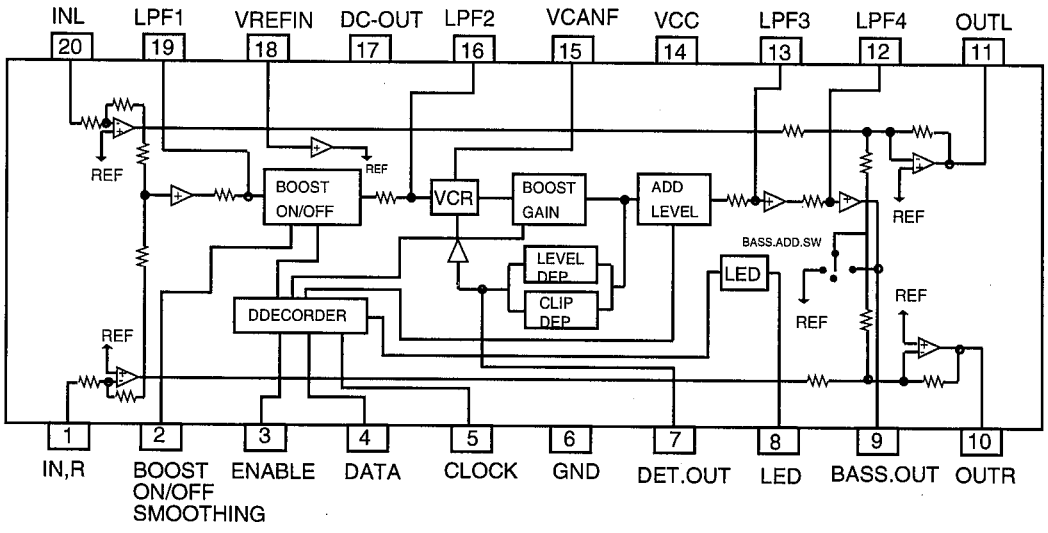


3. Pin Function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	OSC1	I	Oscillation	10	RECEIVE	--	Non connection
2	GND	--	GND	11	GND	--	GND
3	GND	--	GND	12	CORRECTION	--	Non connection
4	RES	I	Reset input	13	ERRDR	--	Non connection
5	CLOCK IN	I	RDS clock input	14	DATA START	O	Data start signal for block data to output serial data
6	DATA IN	I	RDS data input	15	DATA OUT	O	Serial data output
7	CORR.SEL	I	Non connection	16	CLOCK OUT	O	Data output of serial data output
8	GND	I	GND	17	GND	--	GND
9	VDD	--	Power supply	18	OSC2	O	Oscillation terminal

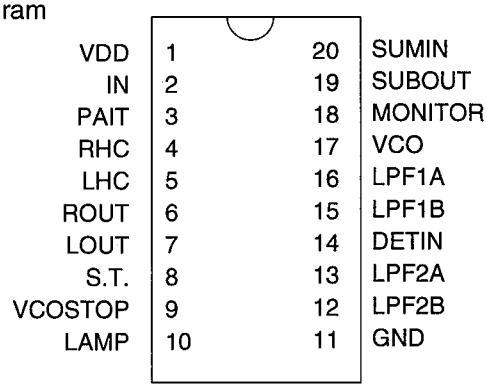
■ LA2650 (IC404)

1.Terminal Layout/Block diagram

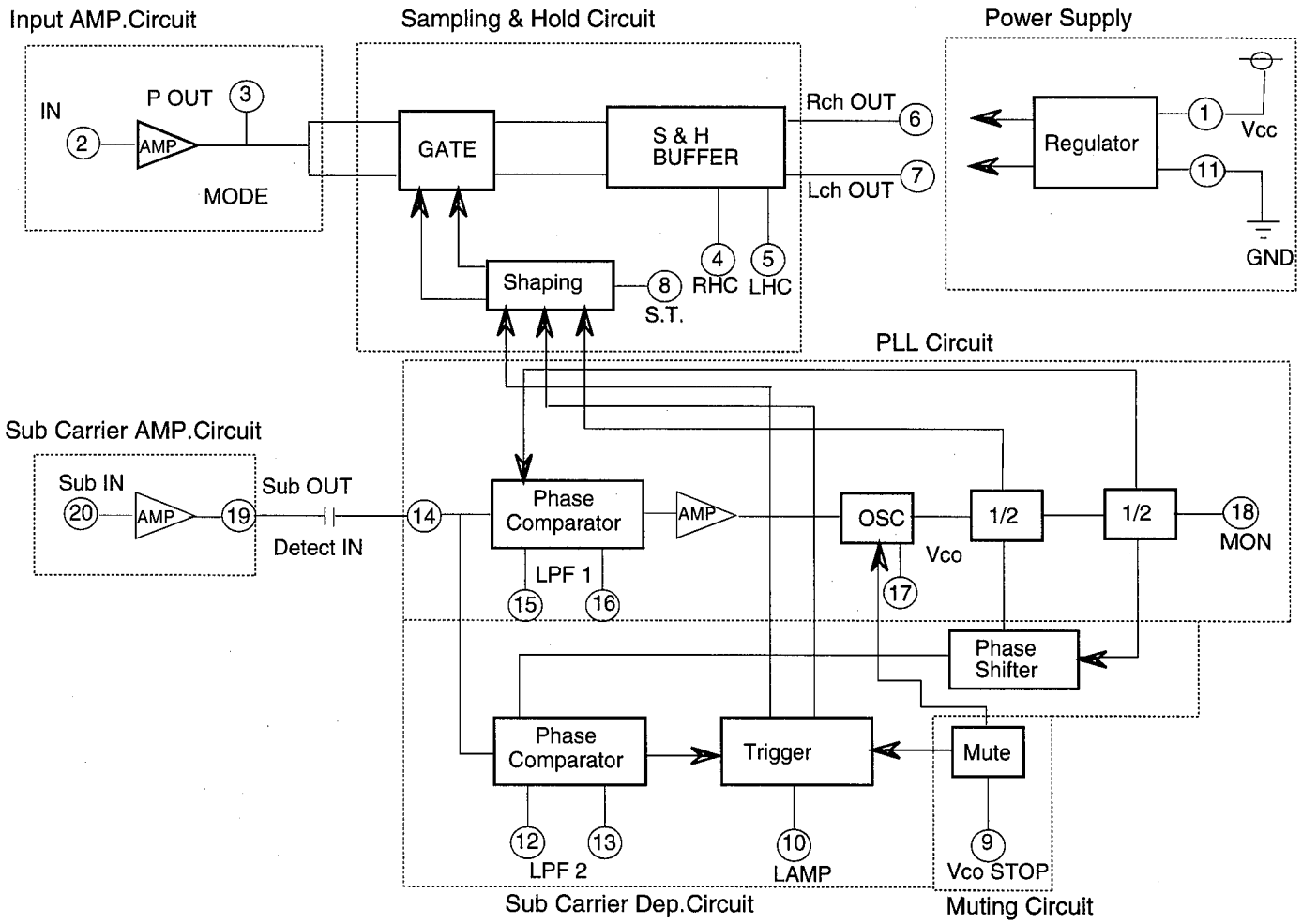


■ IR3R42 (IC104) POLAR STEREO DETECTOR

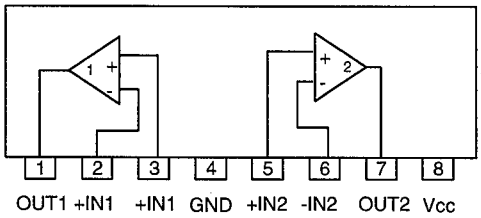
1.Terminal Layout/Block diagram



2.Block diagram

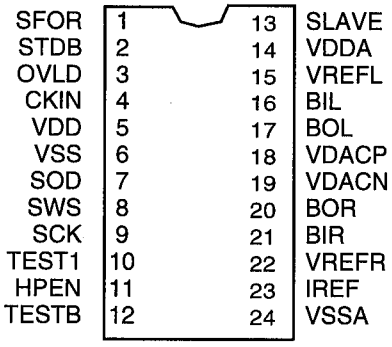


■ BA15218N(IC775) Dual OpeAmp

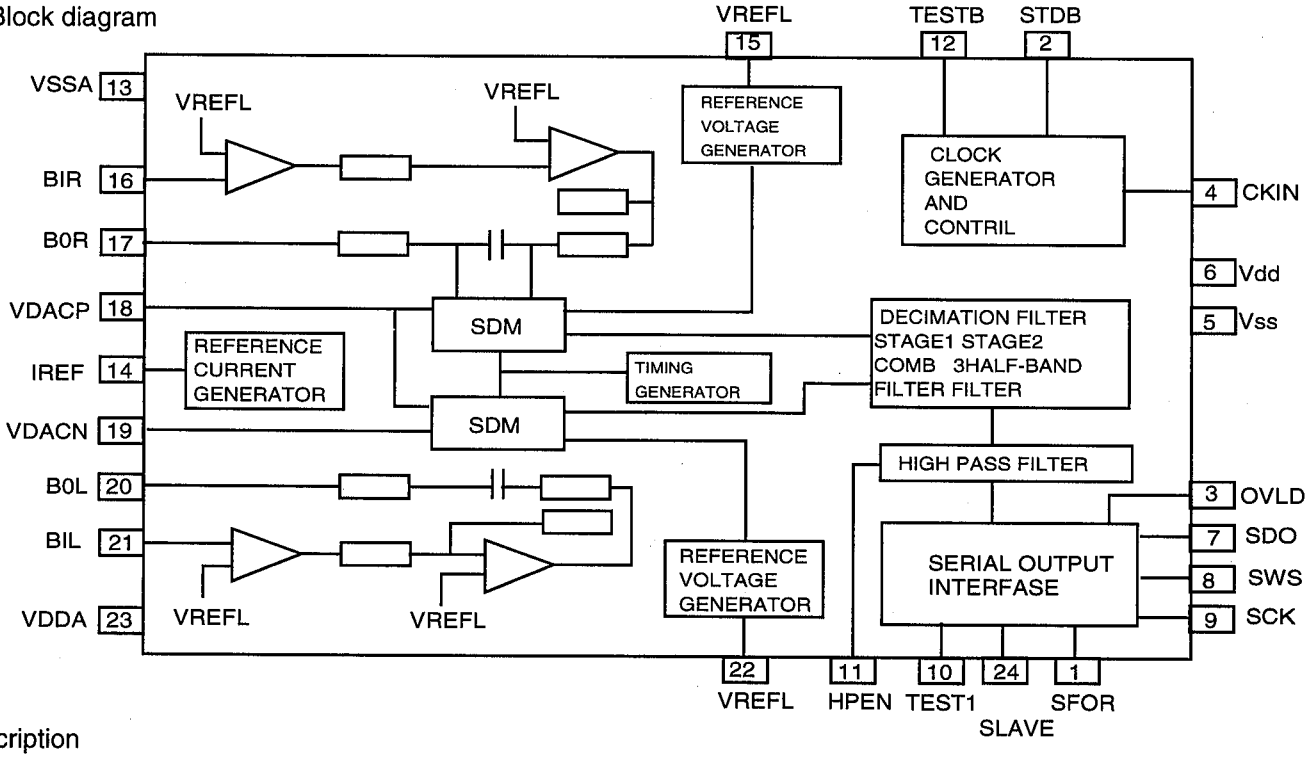


■ SAA7367T (IC031) Bitstream conversion ADC for digital audio system

1.Terminal Layout



2.Block diagram

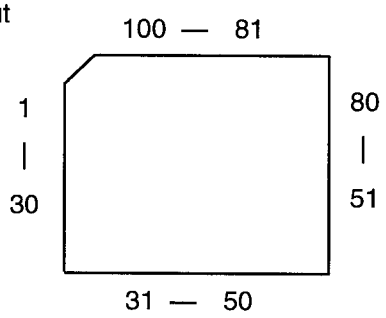


3.Description

Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	SFOR	O	Serial interface output format "H" : Format1 "L" : Format2	13	VSSA	-	Connected to GND
2	STDB	I	Schmitt trigger input "H":Normal operation "L":STANDBY	14	VOUTL	O	Cureent reference generator output
3	OVLD	-	Not use	15	D/C_L	O	Righ channel analogue VDDA/2 reference output
4	CKIN	I	System clock input.Nominally at 256FS	16	BIR	I	Righ channel buffer op-amp inverting input
5	VDD	-	Digital positive supply(+5V)	17	BOR	O	Righ channel buffer op-amp output
6	VSS	-	Digital ground also connected to VSSA,anlogue ground via the on-chip substrate contacts	18	VDACN	I	Negative 1 bit DAC reference voltage input connected to 0 V
7	SDO	O	Serial data output of interface in STANBY mode	19	VDACP	I	Positive 1 bit DAC reference voltage input connected to 5 V
8	SWS	I/O	Serial interface Word Select signal input /output.	20	BOL	O	Left channel buffer op-amp output
9	SCK	I/O	Serial interface Bit Clock signal input /output.	21	BIL	O	Left channel analogue VDDA/2 reference output
10	TESTI	-	Extra serial interface formats select Connected to GND	22	VREFL	O	Left channel analogue VDDA/2 reference output
11	HPEN	-	Pull up (+5V)	23	VDDA	-	Analogue section positive supply (+5 V)
12	TESTB	-	Pull up (+5V)	24	SLAVE	I	Serial interface operating mode select

■ TMS57052BFT (IC751) DAP controller

1.Terminal Layout

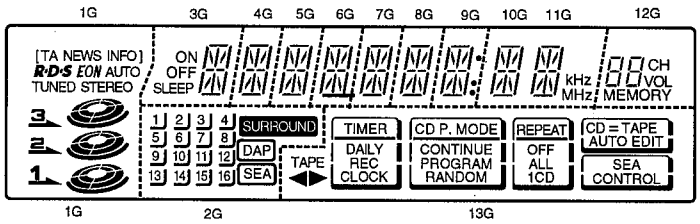


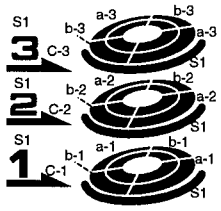
2.Description

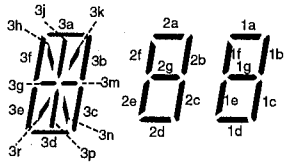
Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1-6	ED2-ED7	I/O	Data bus(ED3-ED6 Not use)	58	HRS	I	Frame sync signal from IC401
7	Vss	-	Connected to GND	59	Vss	-	Connected to GND
8	Vdd	-	Power supply	60	Vdd	-	Power supply (+5V)
9	CLKMO	-	+5V pull up	61	HXBCK	O	Connected to GND
10	CLKM1	-	Connected to GND	62	HXS	O	Connected to GND
11	TMS	-	Not use	63	/CS	I	Chip select terminal From IC401
12	TDI	-	Not use	64	HBCKS	-	Connected to GND
13	TCK	-	Not use	65	12CSEL	-	Connected to GND
14	CLKIN	I	Master Clock input	66	Vss	-	Connected to GND
15	Vss	-	Connected to GND	67	Vdd	-	Power supply
16	Vdd	-	Power supply	68	AXBC1	I	Audio data transmit unit1 bit clock
17	CLKO	-	Not use	69	AXBC2	I	Audio data transmit unit2/3 bit clock
18-	EA18-EA21	-	Not use	70	AXLR1	I	Audio data transmit unit1 frame sync signal
21		-	Not use	71	DIVB/16	O	8 divise masine clock signal output
22	Vss	-	Power supply	72	/LAV	O	Not use
23	Vdd	-	Connected to GND	73	/LMV	-	Not use
24-	EA16-EA15	-	Not use	74	/DRDY	-	Not use
27		I	Not use	75	EMU0	-	Pull up (+5V)
28-	EA4-EA7	I/O	Address bus for IC091	76	EMU1	-	Pull up (+5V)
31		I/O	Address bus for IC091	77	TDO	-	Not use
32	Vss	-	Power supply	78	DIV512	O	512 divide masine clock signal
33	Vdd	-	Connected to GND	79	ARLR1	I	Audio data reciver unit1 frame sync signal
34-	EA8-EA11	-	Non connection	80	ARLR2	I	Audio data reciver unit2 frame sync signal
37		-	Non connection	81	HDIR	-	Pull up (+5V)
38-	TEST0-	-	Non connection	82	SEL5V3V	-	Connected to GND
41	TEST3	-	Non connection	83	/MUTE	I	Mute control
42	/BIO	-	Pull up (+5V)	84	/TRST	-	Connected to GND
43	INT1	-	Pull up (+5V)	85	/RS	I	Reset signal input
44	ARBC1	I	Audio data recever unit1 data input	86	Vss	-	Connected to GND
45	ARBC2	I	Audio data recever unit2 data input	87	Vdd	-	Power supply (+5V)
46	AX1	O	Audio data transmit unit1 data output	88	/IOE	-	Not use
47	AX2	O	Audio data transmit unit2 data output	89	RAS	O	Ram low addres strobe signal
48	AX3	-	Not use	90	/CAS	O	Ram caram addres strobe signal
49	Vss	-	Connected to GND	91	/ROME	-	Not use
50	Vdd	-	Power sully	92	/WE	O	Memory read/write inable
51	HX/SDA	-	Not use	93-	EAO-EA2	O	Memory addres bus
52	/EMPTY	-	Not use	95		O	Menory addres bus
53	AXLR2	I	Audio data transmit unit2/3 frame sync	96	EA3	O	Memory addres bus
54	AR1	I	Audio data recever unit1 data input	97	Vss	-	Connected to GND
55	AR2	-	Connected to GND	98	Vdd	-	Power supply (+5V)
56	HRBCK	I	Clock signal from IC401	99	ED0	I/O	Memory data bus
57	HR	I	Data signal input from IC401	100	ED1	I/O	Memory data bus

Internal Connections of thre FL Display

1.Terminal Layout







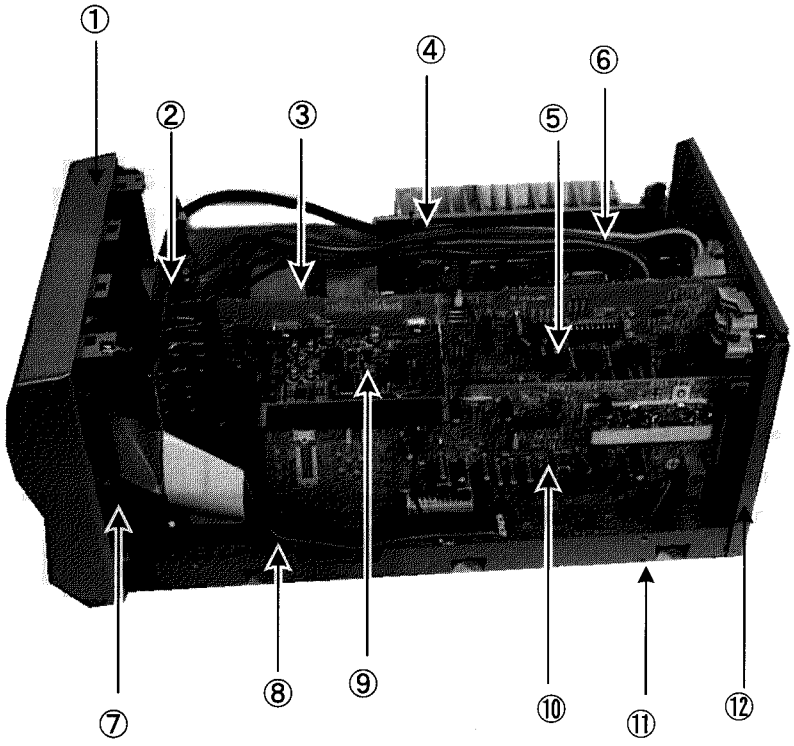
2.Anode Designation

	1G	2G	3G	4-8G	9G	10G	11G	12G	13G
P1	c-1	16	3a	3a	3a	3a	3a		
P2	b-1	15	3b	3b	3b	3b	3b	2a	▷
P3	a-1	14	3j	3j	3j	3j	3j	2b	◁
P4	c-2	13	3k	3k	3k	3k	3k	2f	TAPE
P5	b-2	12	3h	3h	3h	3h	3h	2g	CLOCK
P6	a-2	11	3f	3f	3f	3f	3f	2c	REC
P7	S1	10	3g	3g	3g	3g	3g	2e	DAILY
P8	c-3	9	3m	3m	3m	3m	3m	2d	TIMER
P9	b-3	8	3c	3c	3c	3c	3c		CONTINUE
P10	a-3	7	3n	3n	3n	3n	3n	1a	PROGRAM
P11	TUNED	6	3r	3r	3r	3r	3r	1b	RANDOM
P12	STEREO	5	3p	3p	3p	3p	3p	1f	CD P. MODE
P13	R.D.S	4	3e	3e	3e	3e	3e	1g	OFF
P14	EON	3	3d	3d	3d	3d	3d	1c	ALL
P15	AUTO	2						1e	CD
P16	INFO	1						1d	1
P17	NEWS	SEA	ON		4a		kHz	CH	REPEAT
P18	TA	DAP	OFF		4b		MHz	VOL	CD = TAPE AUTO EDIT
P19	[ ]	SURROUND	SLEEP		4c			MEMORY	SEA CONTROL

3.Terminal Connection

Terminal No.	1	2	3	4	5	6	7	8	9	10	11									
Electrode	F	F	F	NP	1G	2G	3G	4G	5G	6G	7G									
Terminal No.	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Electrode	8G	9G	10G	11G	12G	13G	NP	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10	P 11	P 12	P 13
Terminal No.										32	33	34	35	36	37	38	39	40	41	42
Electrode										P 14	P 15	P 16	P 17	P 18	P 19	NP	NP	F	F	F

Main parts Layout



RX-TD7 Inside View

① Front Panel
② Power Supply PCB
③ Power Transformer
④ Heat sink
⑤ Source Select PCB
⑥ Power amp PCB ass'y
⑦ Front panel PCB
⑧ Connector & Speaker out PCB
⑨ DSP PCB
⑩ Tuner PCB
⑪ Bottom Base
⑫ Rear panel

Dissembly Procedures

(1) Removing the top cover

1.Remove 2 screws(A)fastening both sides of top cover,and 4 screws(B) fastening the rear side.
2.Remove the top cover.

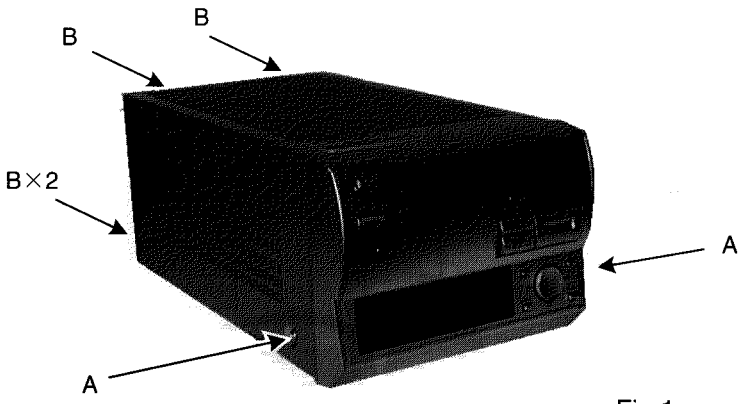


Fig.1

(2) Removing the Rear panel

1.Remove 9 screws(C)fastening rear panel(Fig.2).
2.Remove 2 screws(C)fastening Voltage selector. (Universal type only)
3.Remove the Rear panel from the Hook of Bottom base.

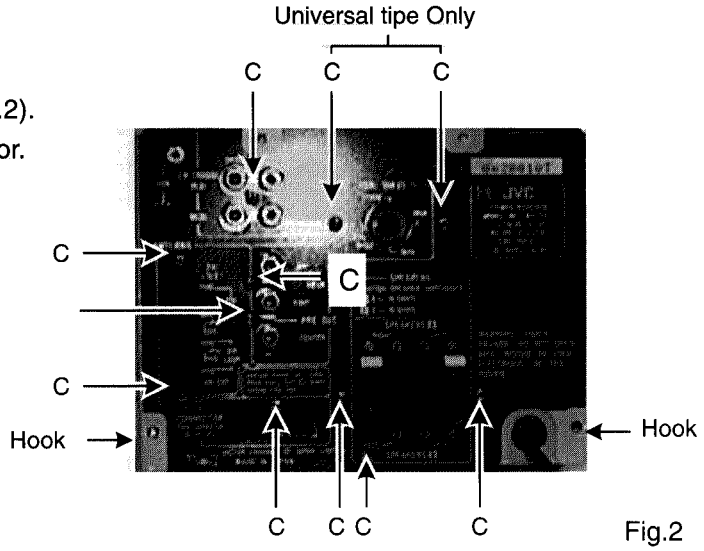


Fig.2

(3) Removing the Tuner PCB and Source Select PCB

1.Remove the Rear panel.
2.Remove the screw H'(Fig.3).(Universal type only)
3.Disconnect the Tuner PCB from the CN101.
4.Disconnect the Source Select PCB and DSP PCB from the CN411 and CN412.

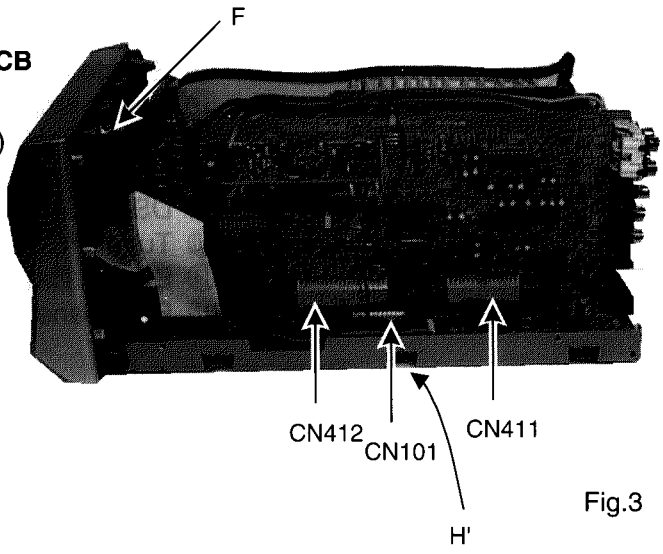


Fig.3

(4) Removing the Front panel Ass'y

1.Remove 2 screws(E)fastening Front panel of the Bottom side (Fig.4).
2.Remove screws(F)fastening Earth wire of the up side(Fig3).
3.Disconnect the Flat Wires from CN891,CN811, CN202.
4.Release the 2 Hooks holding the Front panel.
5.Remove it.

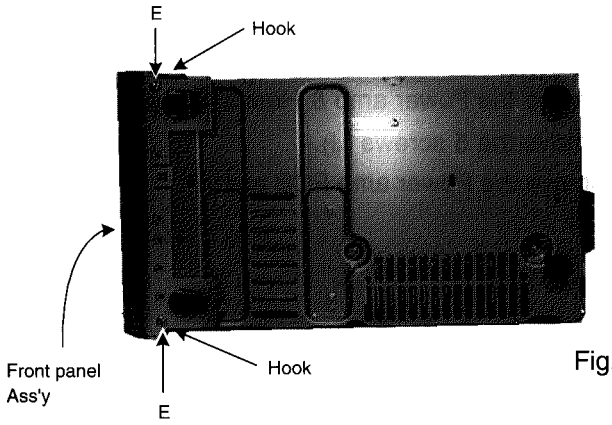


Fig.4

(5) Removing the Power amp PCB & Heat sink Ass'y

1.Remove 4 screws(G)fastening the Bracket of Heat sink (Fig.5).
2.Disconnect the Power amp PCB with Heat sink Ass'y from CN261,CN311,CN312.

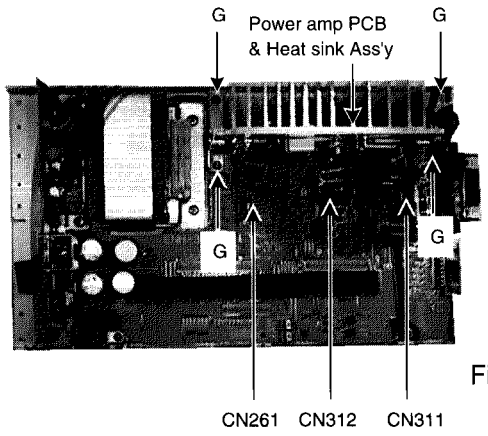


Fig.5

(6) Removing the Connector & Speaker out PCB

1.Remove the Rear panel and Power amp PCB and Heat sink ass'y.
2.Disconnect the Flat Wires CN891,CN811, CN202.
3.Remove 3 screws(H)fastening Connector & Speaker out PCB and Remove it.

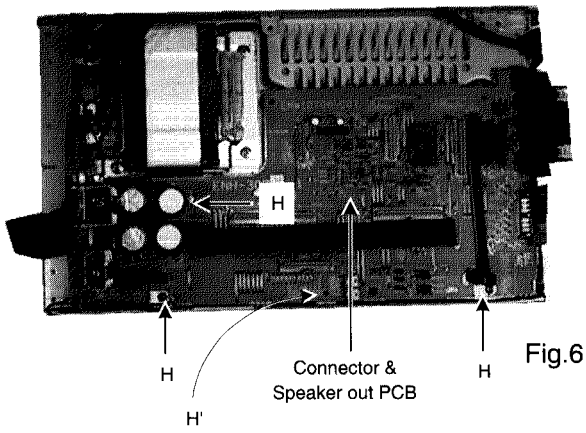


Fig.6

(7) Removing the Front PCB

1.Remove the Front panel Ass'y.
2.Remove 13 screws(I)fastening Front PCB
3.Remove the Front PCB.

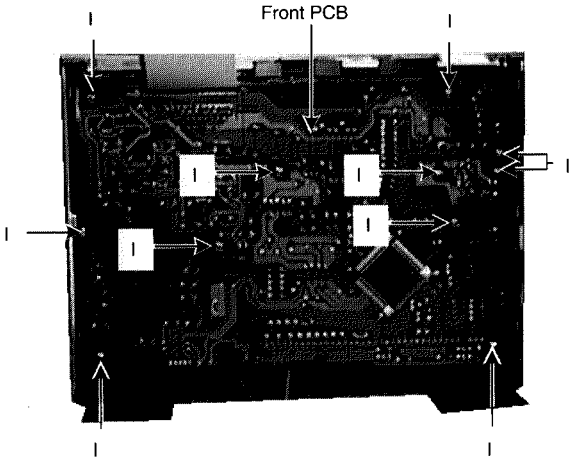
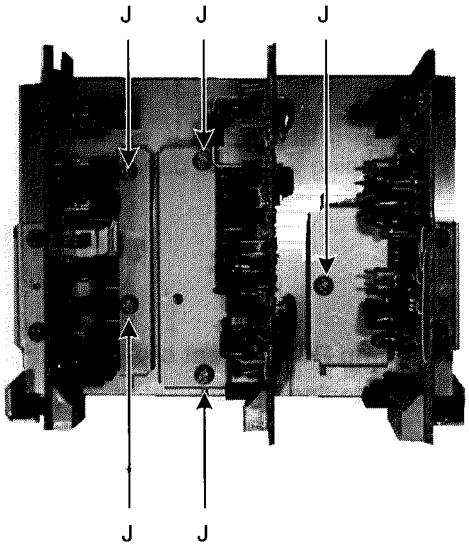


Fig.7

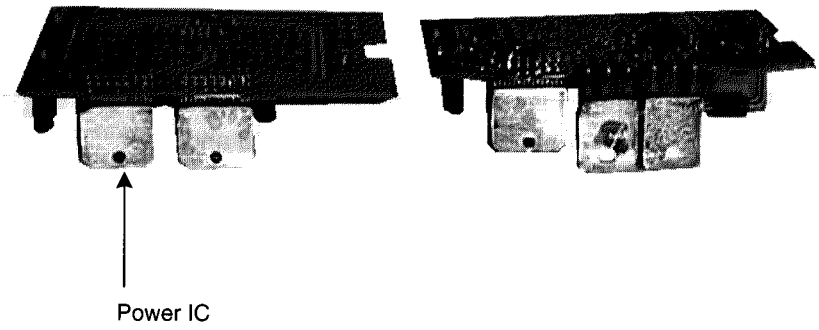
(8) Removing the Power amp PCB ass'y

1.Remove the Power amp & Heat sink Ass'y .
2.Remove the 5 screws (J).
3.Remove the Power amp PCB ass'y.



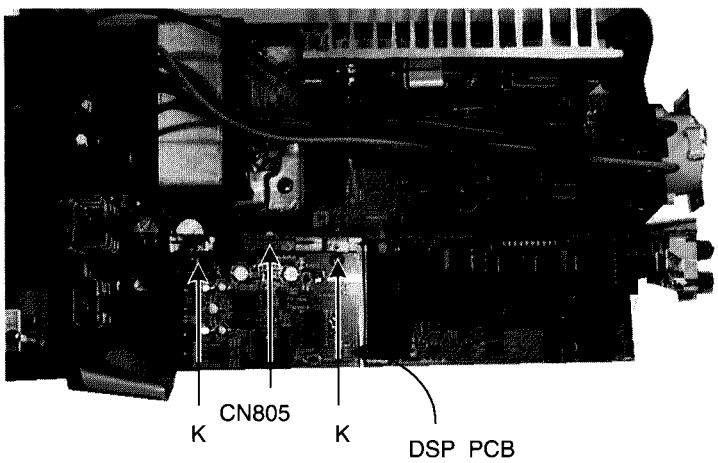
(9) Removing the Power IC

1.Remove the Power amp PCB Ass'y.
2.Unsolder the Power IC terminal.
3.Remove the Power IC.



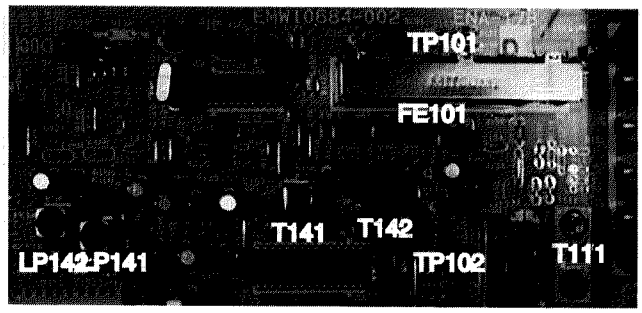
(10) Removing the DSP PCB

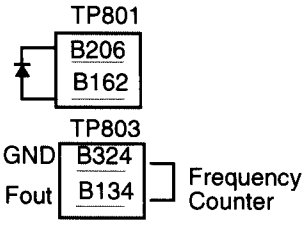
1.Remove the 2 screws (K) .
2.Disconnect the DSP PCB from CN805l.
3.Remove the DSP PCB.



ADJUSTMENT PROCEDURES

■ Tuner section





Clock Adjustment

1. After connecting B206 and B162(TP801) with some wire as shown in the figure below, connect the AC power cord into an AC outlet.
2. Confirm that the display is off and remove the wire.
3. Connect a frequency counter to TP803 B324 and B134.
4. Check the frequency 50000±0.29Hz.

(1) Tuning voltage
Confirm the voltages at TP101 is within the standard values shown in the table below.

Tuning range & Tuning voltage(Unit:V)

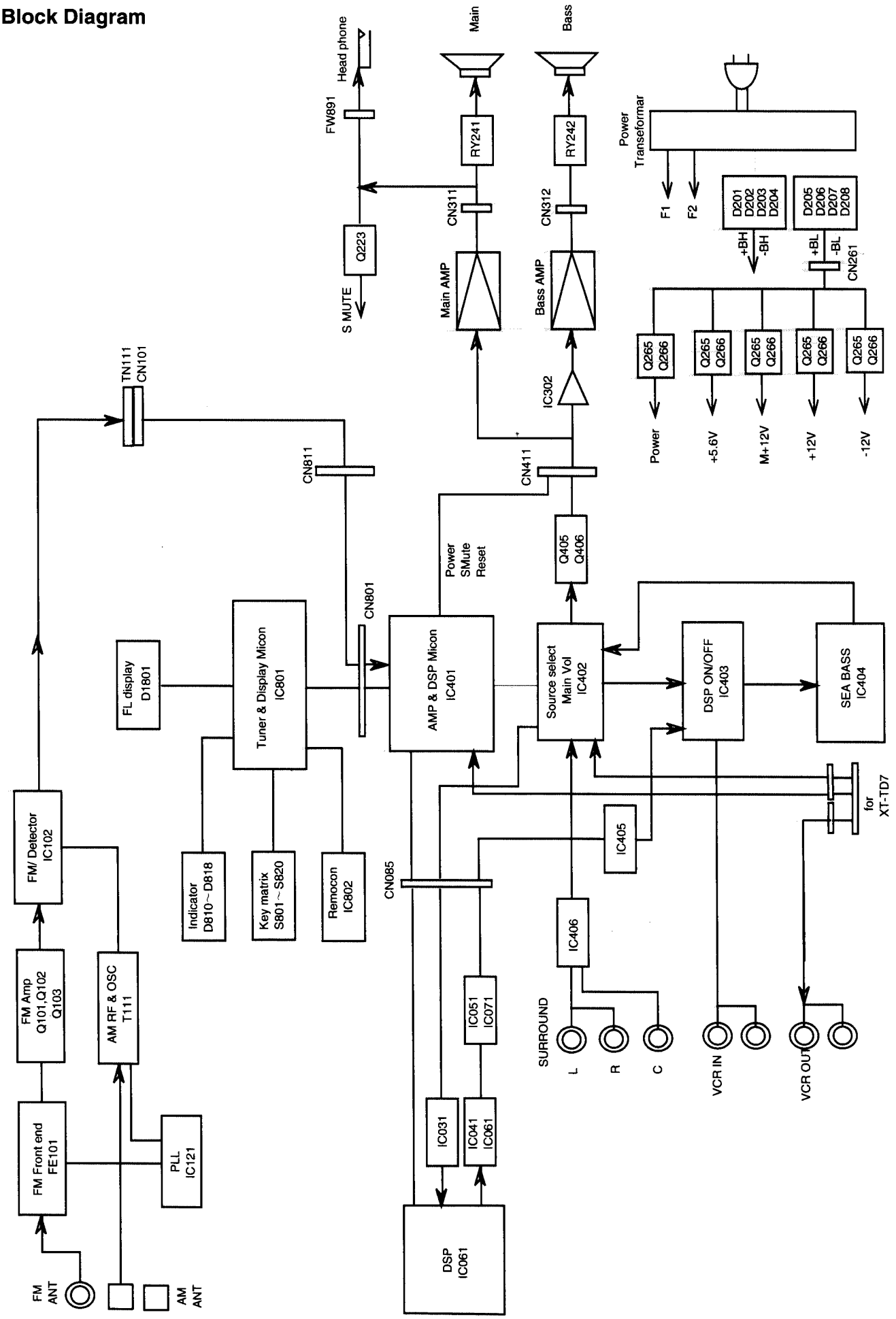
Area	Range				
	LW(kHz)	MW(kHz)	FM(kHz)	FM TU.VOL	
				87.5MHz	108.0MHz
	144~288	522~1629	87.5~108.0	1.6±1.0	8.0±2.0
the U.S.A.Canada	-	530~1710	87.5~108.0	1.6±1.0	8.0±2.0
Universal type(AM Channel space 9kHz)	-	531~1602	87.5~108.0	1.6±1.0	8.0±2.0
Universal type(AM Channel space 10kHz)	-	530~1600	87.5~108.0	1.6±1.0	8.0±2.0
Easern Europe	144~288	522~1629	65.0~74.0 87.5~108.0	65.0MHz >1.3	108.0MHz <11

AM Tuning voltage (Unit:V)

Area	Frequency(MW)							Frequency(LW)	
	522kHz	530kHz	531kHz	1600kHz	1602kHz	1629kHz	1710kHz	144kHz	288kHz
A,the U.K.,Europe	>0.7	-	-	-	-	<8.3	-	0.5<1.0	5.0<7.5
the U.S.A.Canada	-	>0.8	-	-	-	-	<8.8	-	-
Universal(Channel space 9kHz)	-	-	>0.8	-	<7.9	-	-	-	-
Universal(Channel space 10kHz)	-	>0.8	-	<7.9		-	-	-	-

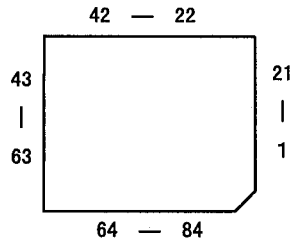
(2) FM center meter
Receive a broadcast by using the function of'AUTO STOP'.
Adjust T105(detector coil)so that the voltage at TP102 becomes 0•}1.5mV.

■ Block Diagram



■ MN172412JAAZ (IC751) DECK & CD controller

1.Terminal Layout



2.Key matrix

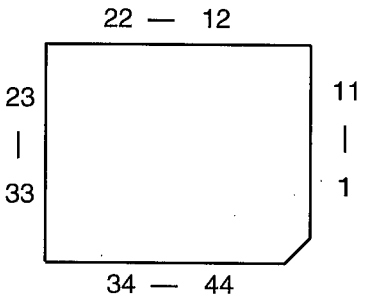
	KEY OUT0	KEY OUT1	KEY OUT2	KEY OUT3	KEY OUT4
KEY IN0	D1 ▲	D2 ▲	D3 ▲	ALL SELECT	REVERSE MODE
KEY IN1	DISC1	DISC2	DISC3	REC	DOLBY NR
KEY IN2	STOP	CD	TAPE	CD REC	
KEY IN3	◄	►	COUNTER RESET	TAPE▲	

3.Description

Pin No.	Symbol	I/O	Function and Operation	Pin No.	Symbol	I/O	Function and Operation
1	/PACK	I	PACK switch detect input	43	DATA	I/O	Chenger control/Status data
2	/PLAY	I	Play switch detect input	44	CMRDYCC	O	Redy signal for IC801
3	/OPEN SW	I	Open signal detect input	45	CMCLKC	O	Clock signal for IC801
4	/CLOSE SW	I	Close switch detect input	46	CMOT2C	I	Data signal from IC801
5	OPEN	O	Open signal output	47	CMOT1C	O	Data signal for IC801
6	CLOSE	O	Close signal output	48	REQ	I	Request Data from IC681
7	/DETECT	I	Photo interrapter detect input	49			
8		-	Connected to GND	50			
9		-	Connected to GND	51			
10		-	Connected to GND	52	/KO0	O	Key matrix output
11		-	Connected to GND	53	/KO1	O	Key matrix output
12		-	Connected to GND	54	/KO2	O	Key matrix output
13		-	Connected to GND	55	/KO3	O	Key matrix output
14	/MS IN	I	Music scan signal input	56	/KO4	O	Key matrix output
15	CAPN	O	Capstan moter control	57	/CDRST	O	Key matrix output
16	PLZ	O	Mech.solenoide control	58			
17		-	Non connection	59			
18		-	Non connection	60	/KI0	I	Key matrix input
19		-	Non connection	61	/KI1	I	Key matrix input
20	BIAS	I	Rec bias ON/OFF control	62	/KI2	I	Key matrix input
21	REC	O	It is "H"when recording	63	/KI3	I	Key matrix input
22	RMT	O	Recording mute control	64	RECI	O	Recording indicator control
23		-	Connected to GND	65	REVI	O	Reverse indicator control
24	/PB/REC	O	Rec.P.B select	66	MRI	O	MR indicator control
25	NR	O	Noise reduction control	67	TAPEI	O	TAPE indicator control
26	PMT	O	Play back mute control	68	/RESET	O	Reset signal output
27		-	Non connection	69	GND	-	Connected to GND
28	CONTA	O	CD/Deck output detect	70	NC	-	Non connection
29	CONTB	O	CD/Deck output detect	71	GND	-	Connected to GND
30	LsiON	O	CD Lsi power supply control	72	OSC	I/O	Osillation terminal
31	OMT	O	Deck mute control	73	OSC	I/O	Osillation terminal
32		-	Connected to GND	74	Vdd	-	Power supply(+5V)
33		-	Connected to GND	75	CDI	O	CD indicator control
34		-	Connected to GND	76	DISC3I	O	DISC3 indicator control
35		-	Connected to GND	77	DISC2I	O	DISC2 indicator control
36		-	Connected to GND	78	DISC1I	O	DISC1 indicator control
37		-	Connected to GND	79		-	Connected to GND
38		-	Connected to GND	80		-	Connected to GND
39		-	Connected to GND	81	DCS IN	I	DCS signal input
40	ST	O	Strobe signal for CD micon	82	DCS OUT	O	DCS signal output
41	CK	O	Clock signal for CD micon	83	FREC	I	FWD rec switch detect
42		O	Data signal for CD micon	84	RREC	I	REV REC switch detect

■ MN150837JBR2 (IC681) Changer controller

1.Terminal Layout

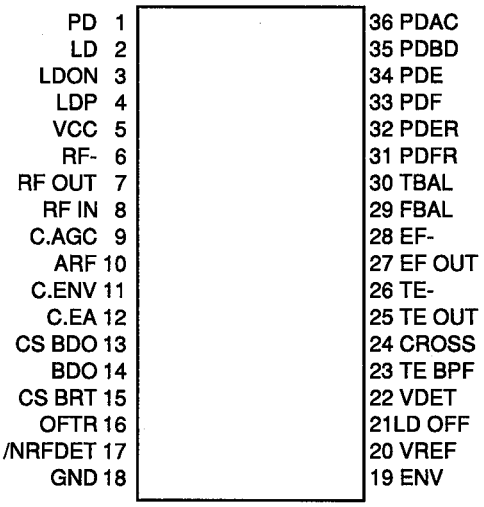


2.Description

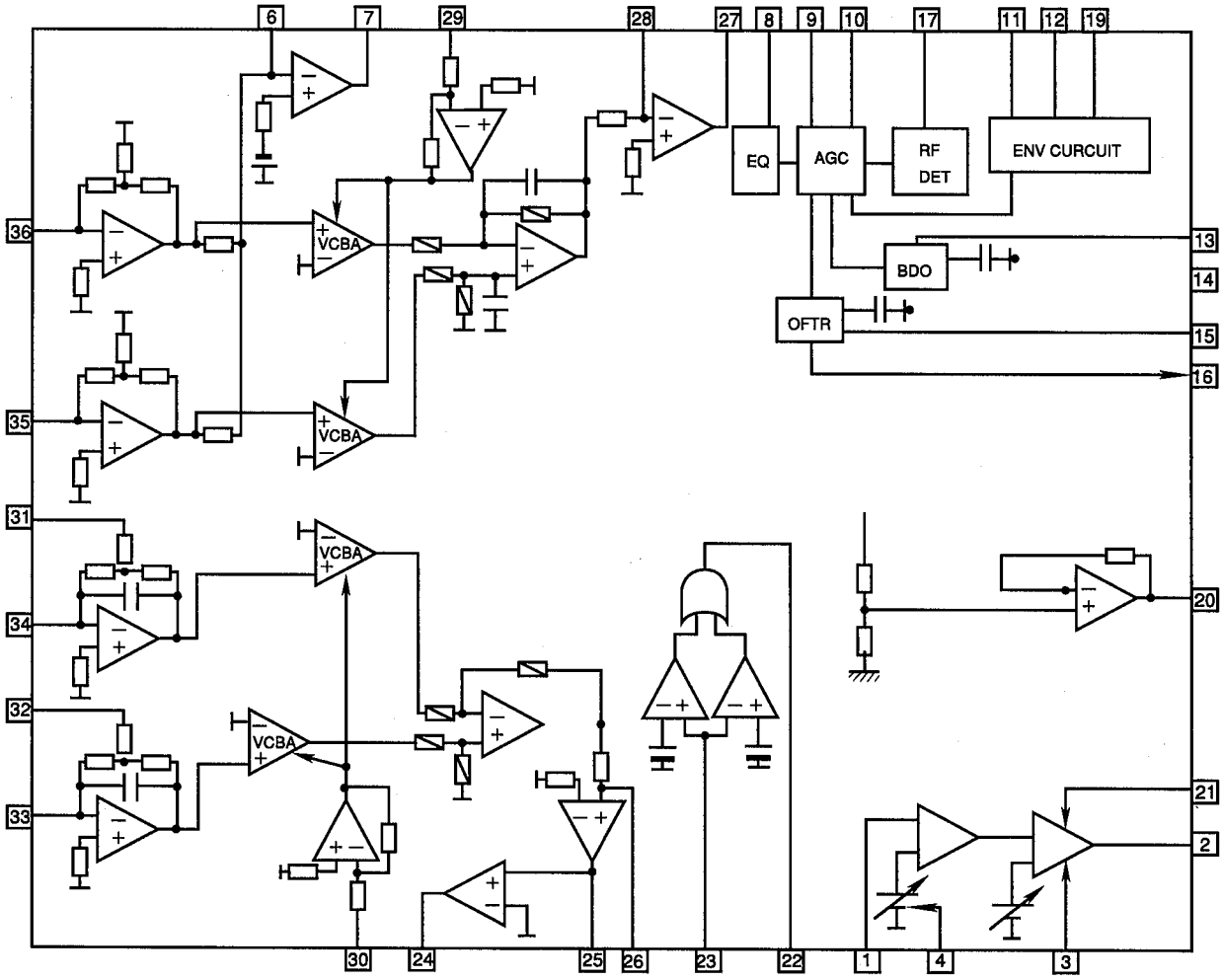
Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	/RESET	I	Reset signal input	23	ST	I	Storobe signal input
2		-	Non connection	24	DATA	I/O	Control/Status data I/
3	WATCH5V	O	+5V	25	CK	O	Clock signal output
4	DOOROPEN	I	/Door open switch detect	26	STATS	I	STATS signal input
5	DOORCLOSE	I	/Door close switch detect	27	/TLOCK	I	TLOCK signal input
6	PHOTOSW	I	/Photo switch detect	28	/FLOCK	I	FLOCK signal input
7	NC	-	Non connection	29	SENSE	I	SENSE signal input
8	TRAY+	O	Tray motor drive + signal output	30	NC	-	NC
9	TRAY-	O	Tray motor drive - signal output	31	SQCK	O	Lock signal for sub-code Q resister
10	CAM+	O	Cam motor drive + signal output	32	MLD	O	Micon command load signal output
11	CAM-	O	Cam motor drive - signal output	33	MDATA	O	Micon command data output
12	SUBQ	I	Sub-code Q-data output	34	MCLK	O	Micon command clock signal input
13	NC	-	Non connection	35	/RST	-	Reset signal output (L:reset)
14	/INTALSW	I	Initial switch detect	36	NC	-	Non connection
15	/SUBSW	I	Sub tray switch detect	37	NC	I	Non connection
16	/RESETSW	I	Rest switch detect	38	/DRIVERMUTE	O	BTL driver mute signal output
17	NC	-	Non connection	39	Vss	-	Connected to GND
18	NC	-	Non connection	40	OSC2	I/O	Oscillation terminal
19	NC	-	Non connection	41	OSC1	I/O	Oscillation terminal
20	NC	-	Non connection	42	VDD	-	Power supply
21	REQ	O	Output the "CD micon data request"	43	X1	-	Connected to GND
22	BLKCK	I	Subcode/block/clock signal input	44	X0	-	Non connection

■ AN8806SB(IC601):RF&SERVO AMP

1.Terminal Layout



2.Block Diagram

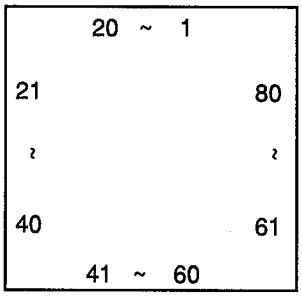


3. Functions

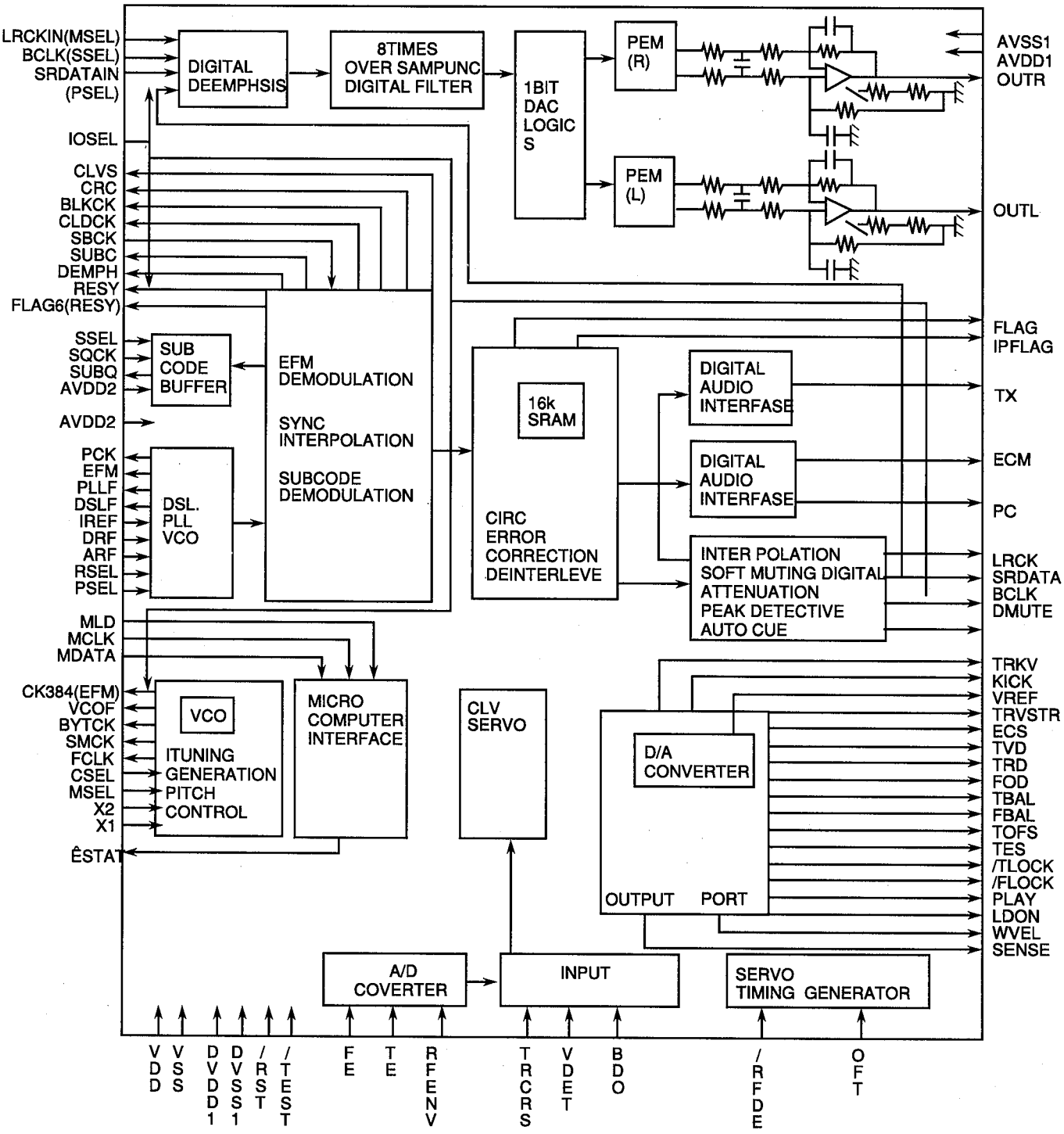
Pin No.	Symbol	I/O	Functions and operations
1	PD	I	APC amp input terminal
2	LD	O	APC amp output terminal
3	LD ON	I	APC ON/OFF control terminal
4	LDP	--	Connect to ground
5	VCC	--	Power suppry
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RFamp output
8	RF IN	I	RF input
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	RF output
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of RF signal
16	OFTR	O	Of-track status signal output
17	/NRFDET	O	RF detection signal output
18	GND	--	Ground
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output
21	LD OFF	--	Connect to ground
22	VDET	O	Vibration detection signal output
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output
25	TE OUT	O	Tracking error signal output
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control
30	TBAL	I	Tracking balance control
31	PDFR	I/O	F I-V amp gain control
32	PDER	I/O	E I-V amp gain control
33	PDF	I	I-V amp input
34	PDE	I	I-V amp input
35	PD BD	I	I-V amp input
36	PD AC	I	I-V amp input

■ MN35510(IC651):DIGITAL SERVO&DIGITAL SIGNAL PROCESSER

1. Terminal Layout



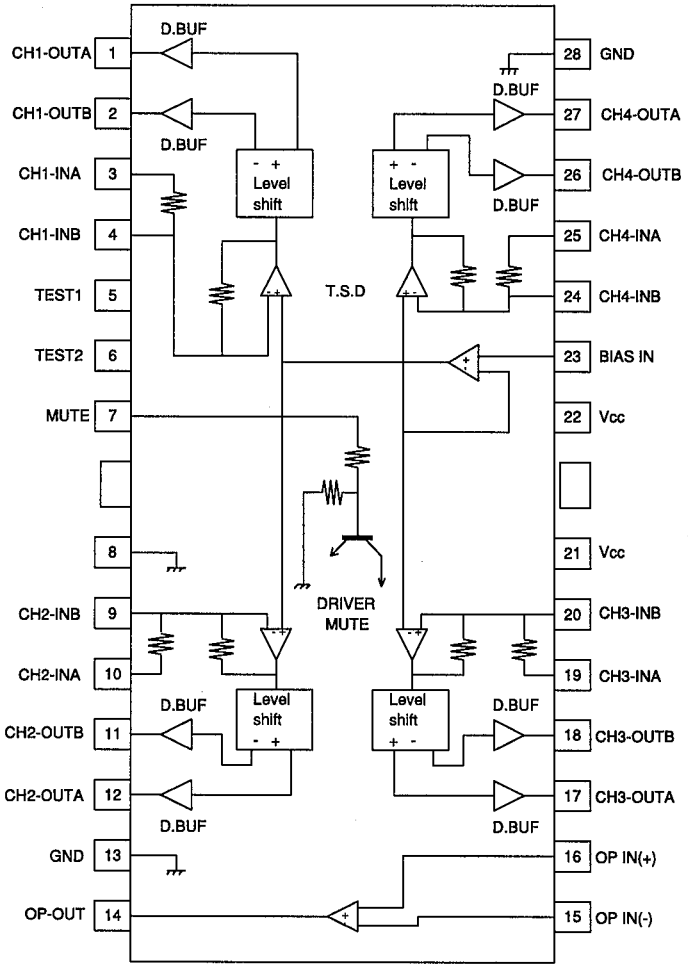
2.Block Diagram



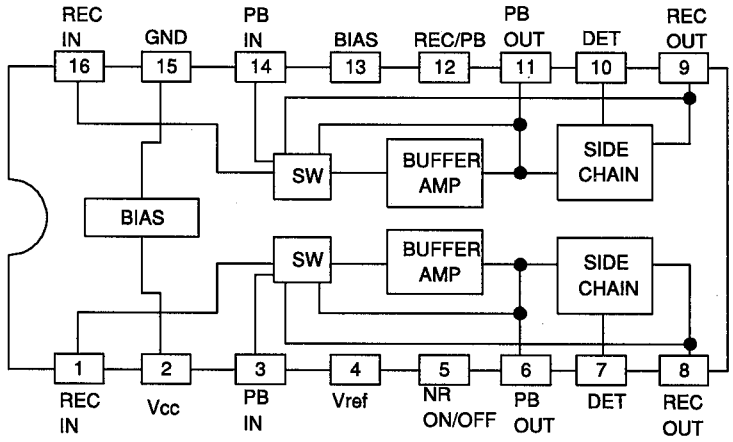
3. Description

Pin No.	symbol	I/O	Description	Pin No.	symbol	I/O	Description
1	BCLK	O	Not used	41	TES	O	Tracking error shunt signal output(H:shunt)
2	LRCK	O	Not used	42	PLAY	—	Not used
3	SRDATA	O	Not used	43	WVEL	—	Not used
4	DVDD1	—	Power supply (Digital)	44	ARF	I	RF signal input
5	DVSS1	—	Connected to GND	45	IREF	I	Reference current input pin
6	TX	O	Digital audio inter output	46	DRF	I	Bias pin for DSL
7	MCLK	I	μcom command clock signal input (Data is latched at signal's rising point)	47	DSLF	I/O	Loop filter pin for DSL
8	MDATA	I	μcom command data input	48	PLLF	I/O	Loop filter pin for PLL
9	MLD	I	μcom command load signal input	49	VCOF	—	Not used
10	SENSE	O	Sence signal output	50	AVDD2	—	Power supply(Analog)
11	FLOCK	O	Focus clock signal output Active :Low	51	AVSS2	—	Connected to GND(Analog)
12	TLOCK	O	Tracking clock signal output Active :Low	52	EFM	—	Not used
13	BLKCK	O	sub-code·block·clock signal output	53	PCK	—	Not used
14	SQCK	I	Outside lock for sub-code Q resister input	54	PDO	—	Not used
15	SUBQ	O	Sub-code Q -code output	55	SUBC	—	Not used
16	DMUTE	—	Connected to GND	56	SBCK	—	Not used
17	STATUS	O	Status signal (CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)	57	VSS	—	Connected to GND(for X'tal cscillation circuit)
18	RST	I	Reset signal input (L:Reset)	58	XI	I	Input of 16.9344MHz X'tal oscillation circuit
19	SMCK	—	Not used	59	X2	O	Output of X'tal oscillation circuit
20	PMCK	—	Not used	60	VDD	—	Power supply(for X'tal cscillationcircuit)
21	TRV	O	Traverse enforced output	61	BYTCK	—	Not used
22	TVD	O	Traverse drive output	62	CLDCK	—	Not used
23	PC	—	Not used	63	FLAG	—	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State	64	IPPLAG	—	Not used
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	—	Not used
26	KICK	O	Kick pulse output	66	CLVS	—	Not used
27	TRD	O	Tracking drive output	67	CRC	—	Not used
28	FOD	O	Focus drive output	68	DEMPH		Not used
29	VREF	I	Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)	69	RESY	—	Not used
30	FBAL	O	Focus Balance adjust signal output	70	IOSEL	—	pull up
31	TBAL	O	Tracking Balance adjust signal output	71	TEST	—	pull up
32	FE	I	Focus error signal input(Analog input)	72	AVDD1	—	Power supply(Digital)
33	TE	I	Tracking error signal input(Analog input)	73	OUT L	O	Lch audio output
34	RF ENV	I	RF envelope signal input(Analog input)	74	AVSS1	—	Connected to GND
35	VDET	I	Vibration detect signal input(H:detect)	75	OUT R	O	Rch audio output
36	OFT	I	Off track signal input(H:off track)	76	RSEL	—	pull up
37	TRCRS	I	Track cross signal input	77	CSEL	—	Connected to GND
38	RFDET	I	RF detect signal input(L:detect)	78	PSEL	—	Connected to GND
39	BDO	I	BDO input pin(L:detect)	79	MSEL	—	Connected to GND
40	LDON	O	Laser ON signal output(H:on)	80	SSEL	—	Pull up

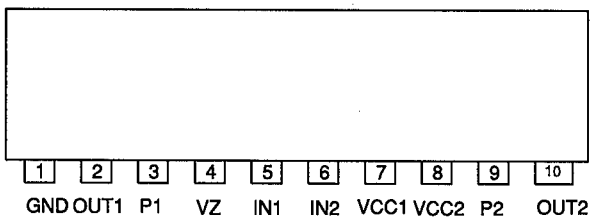
■ BA6897FP(IC701,IC801) 4channel driver



■ HA12136(IC351)
Noise Reduction Amplifire



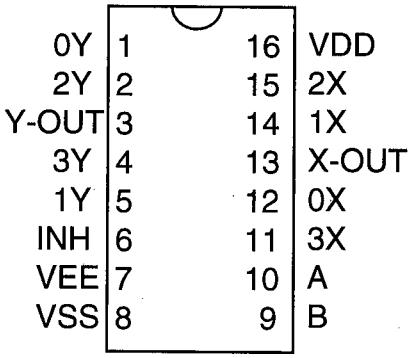
■ LB1641(IC775) DC Motor Driver



FUNCTION

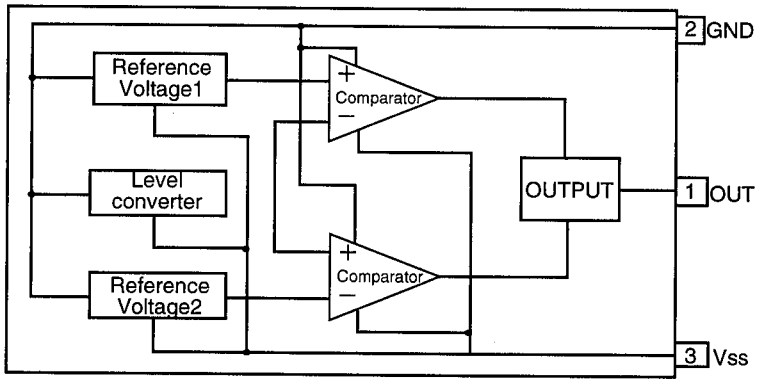
Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	CLOCKWISE
0	1	0	1	COUNTER-CLOCKWISE
1	1	0	0	Brake

■ TC4052BP(IC731) : Multipllexer



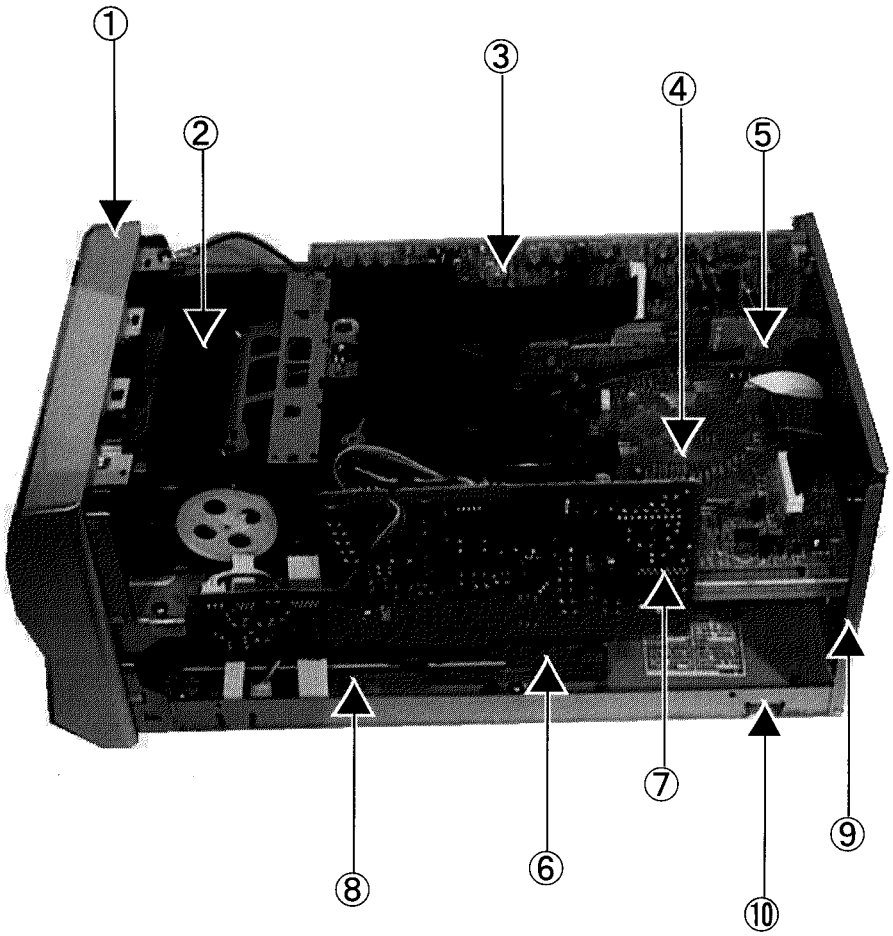
INHIBIT	B	A	X-OUT	Y-OUT
L	L	L	0X	0X
L	L	H	1X	1X
L	H	L	2X	2X
L	H	H	3X	3X
L	L	L	-	-
L	L	H	-	-
L	H	L	-	-
L	H	H	-	-
H	*	*	NONE	NONE

■ MN1381(IC752) : Reset IC



Pin No	symbol	Function
1	OUT	Reset signal output Reset : L
2	Vdd	Power supply
3	Vss	GND

Main parts Layout



XT-TD7 Inside View

① Front Panel
② Cassette mech.ass'y
③ Deck PCB
④ Deck/CD control
⑤ Optical out PCB
⑥ CD changer mech. ass'y
⑦ Deck loading mech. PCB
⑧ CD servo PCB
⑨ Rear panel
⑩ Bottom Base

Dissembly Procedures

(1) Removing the top cover

1.Remove 2 screws(A)fastening both sides of top cover,and 4 screws(B) fastening the rear side.
2.Remove the top cover.

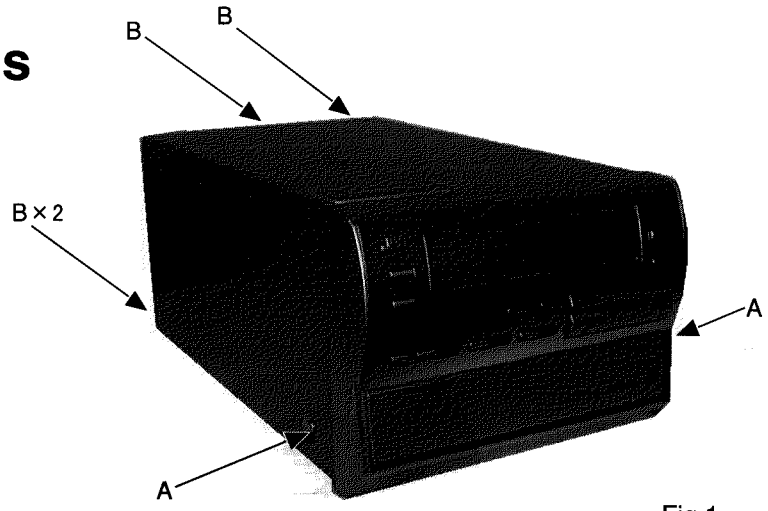


Fig.1

(2) Removing the Rear panel

1.Remove 6 screws(C)fastening rear panel(Fig.2).
2.Disconnect the Flat wire from the CN701.
3.Remove the Rear panel from the Hook of Bottom base.

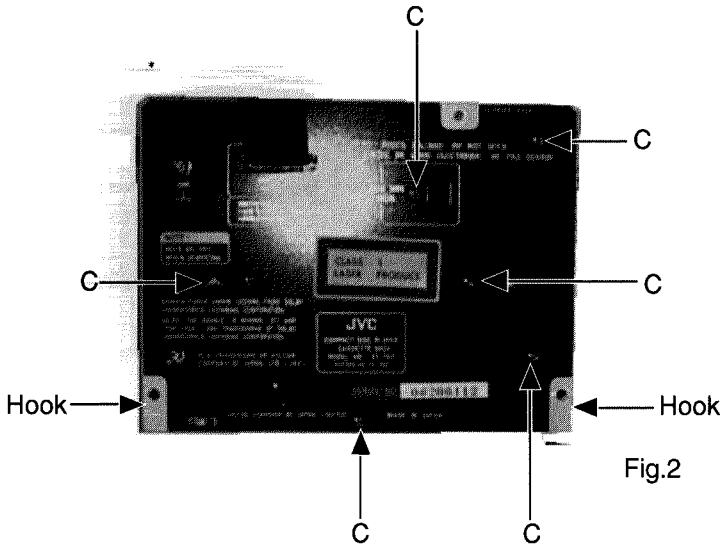


Fig.2

(3) Removing the Cassette Deck mech. ass'y.

1.Rotate the Pulley (D) clockwise with finger so that Cassette tray is unlading .
2.Take out the tray hitting.
3.Disconnect the CN791.
4.Remove the 2 screws (E) and Remove the Cassette Deck mech.ass'y.

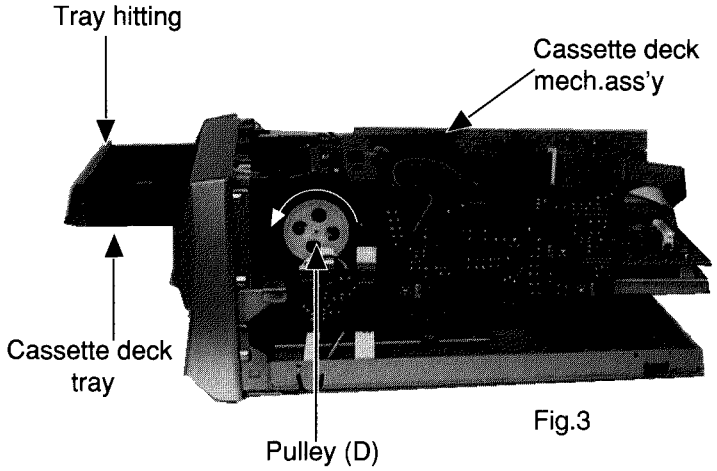


Fig.3

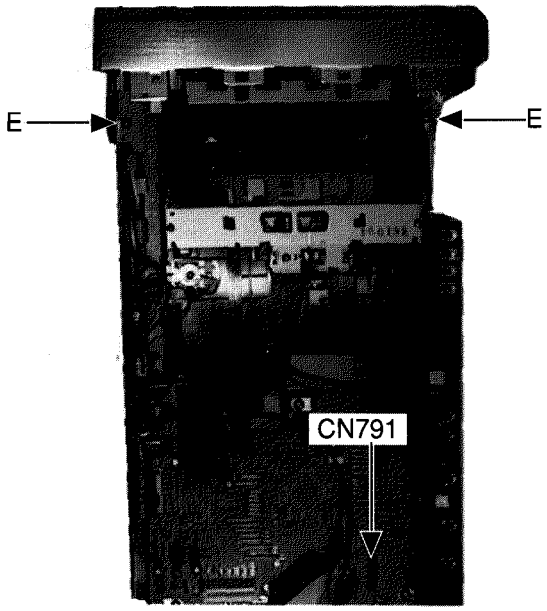


Fig.4

(4) Removing the CD changer mech. Ass'y

1.Remove the cassette mech.ass'y.
2.Remove 4 screws (F)fastening the CD changer mech.ass'y (Fig.5).
3.Push the Rack gear so that CD tray is open(Fig.6).
4.Remove the CD tray hitting(Fig.7).
5.Remove the CD changer mech.ass'y.

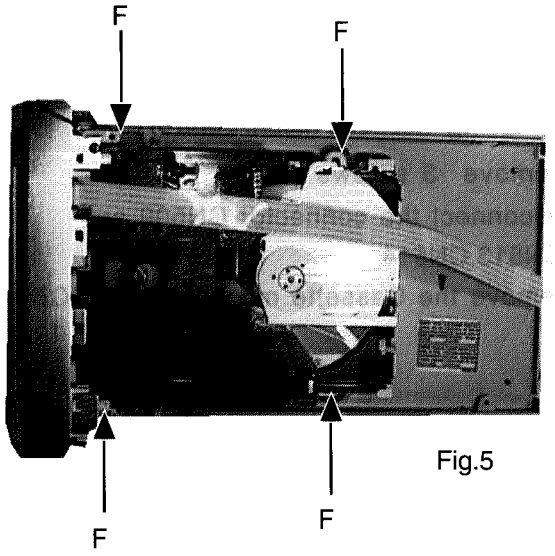


Fig.5

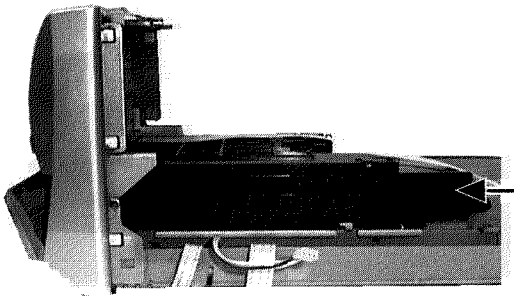


Fig.6

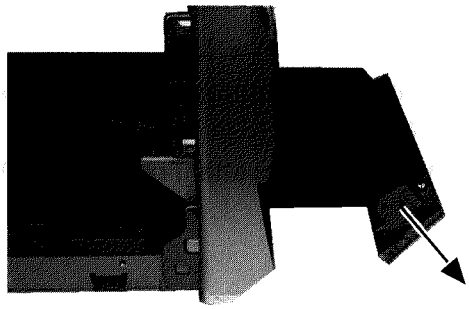


Fig.7

(5) Removing the Front panel Ass'y

1.Remove the Top cover.
2.Remove the Cassette tray hitting and CD changer tray hitting .
3.Disconnect the flat wire from CN791.
5.Remove the 2 screws (G) (Fig8).
6.Release the 2 hooks holding the Front panel ass'y and Remove it.

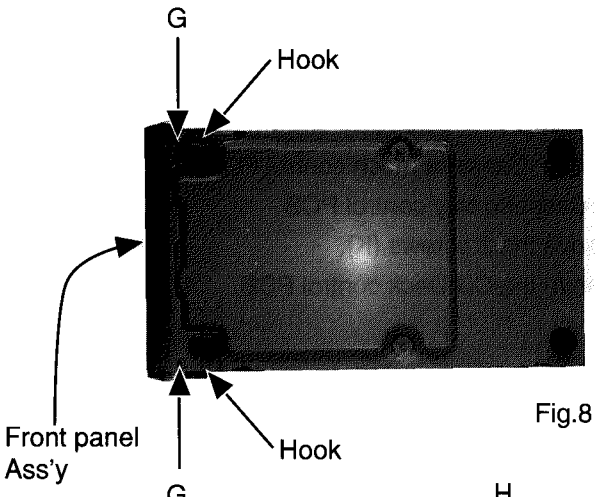


Fig.8

(6) Removing the Front PCB

1.Remove the Front panel ass'y.
2.Remove the 6 screws(H)fastening the Bracket and Front PCB.
3.Remove the Front PCB.

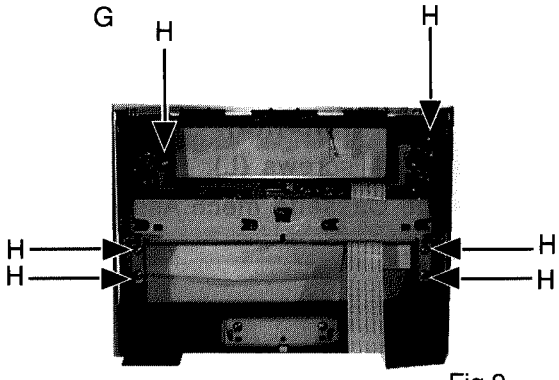


Fig.9

Cassette Mech. Ass'y removal

(7) Removing Cassette mech. control PCB

1.Remove 3 screws (I).
2.Disconnect the connector CN502 and CN513,CN514
3.Remove the Cassette mech. control PCB.

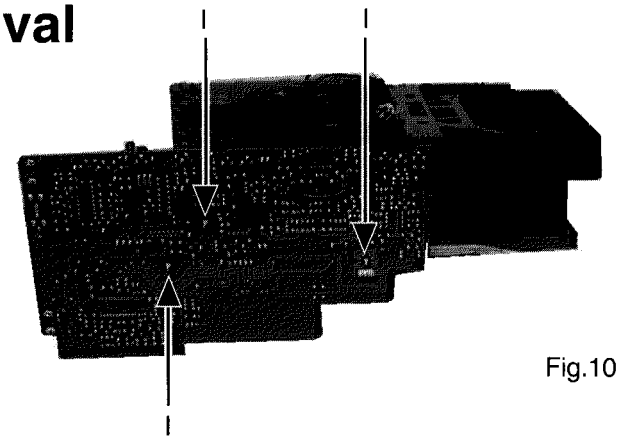


Fig.10

(8) Removing Cassette Tray control PCB

1.Remove 3 screws (J) .
2.Disconnect the connecter CN702 and CN703.
3.Remove the Cassette Tray control PCB.

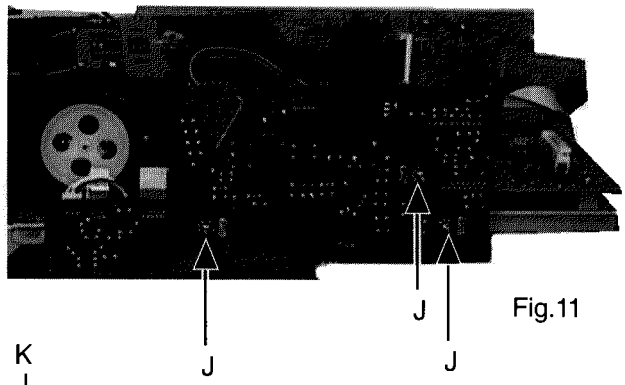


Fig.11

(9) Removing CD/Deck control PCB

1.Remove the Cassette mech. Ass'y .
2.Remove Cassette mech.control PCB and Cassette tray control PCB.
3.Remove the 3 screws (K).
4.Remove the CD/Deck control PCB.

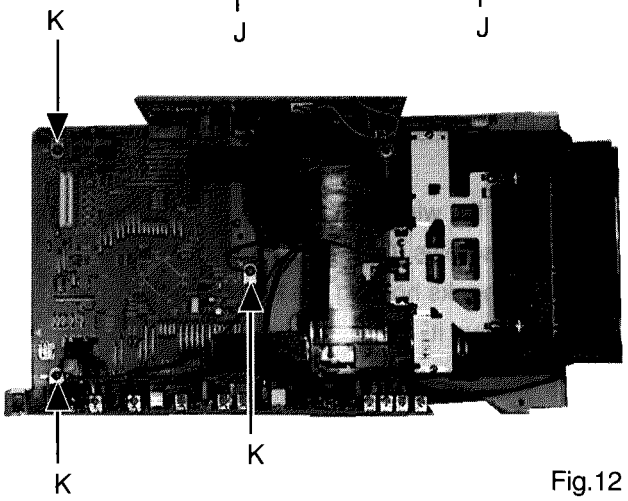


Fig.12

(10) Removing Cassette mech. Ass'y (with out control PCB)

1.Remove the (7),(8),(9).
2.Remove the 4 screws (L).
3.Remove the Cassette mech.Ass'y.

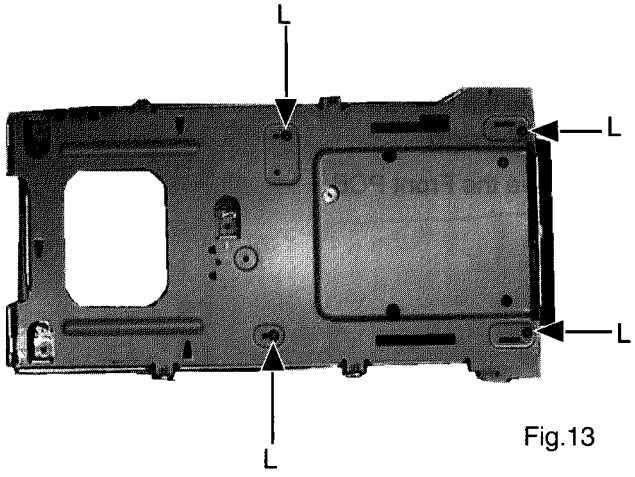


Fig.13

(11) Removing Cassette Tray

1.Remove the Cassette mech. Ass'y .
2.Remove 2 screws (M).
3.Release the spring from the plate,and Remove a plate.
4.Push the hook shown in the figure Fig.14,and Remove the Cassette holder.
5.Rotate the loading pulley counterclock wise ,and open the Cassette tray.(Fig.15)
6.Push the Cassette tray hooks of both side shown in the figure Fig.15 .
7.Pull out the Cassette tray.

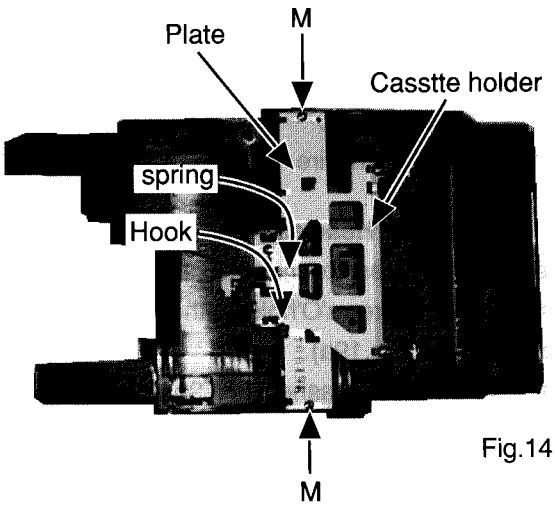


Fig.14

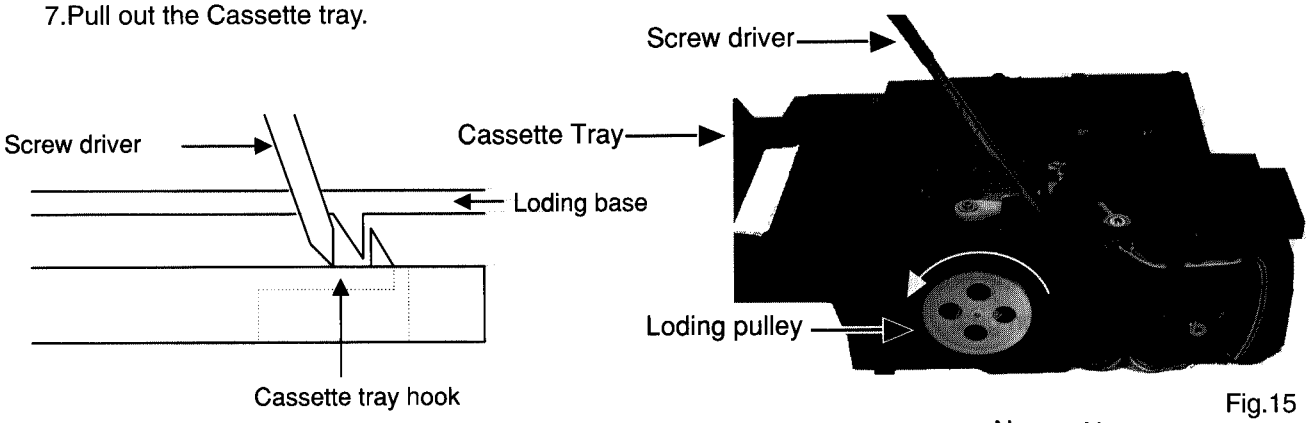


Fig.15

(12) Removing Cassette Mech. Ass'y (with out loading mech.ass'y)

1.Remove the Cassette mech. Ass'y.
2.Remove 6 screws (N).
3.Remove the Cassette mech.ass'y.

● Procedures for Reassembling the Cassette mech. Ass'y.
1.Open the Cassete Tray.
2.Mounting the Cassette mech.Ass'y.

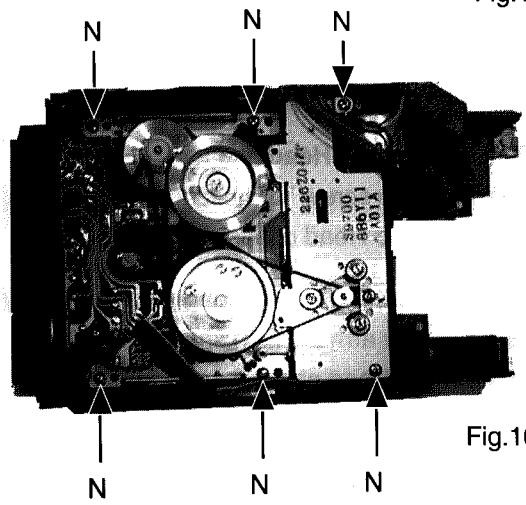


Fig.16

(13) Removing the Cassette mech. Switch PCB

1.Remove the Cassette mech. Ass'y .
2.Unsolder the 4 pin wire and solenoid terminal.
3.Remove the 2 screws (O).
4.Remove the Cassette mech. PCB.

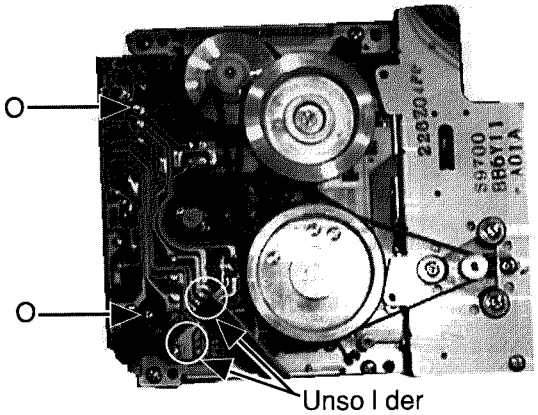


Fig.17

(14) Removing the Head

1.Remove the Cassette mech. Ass'y.
2.Remove 2 screws'P'.
3.Unsolder the 4 pin wire.

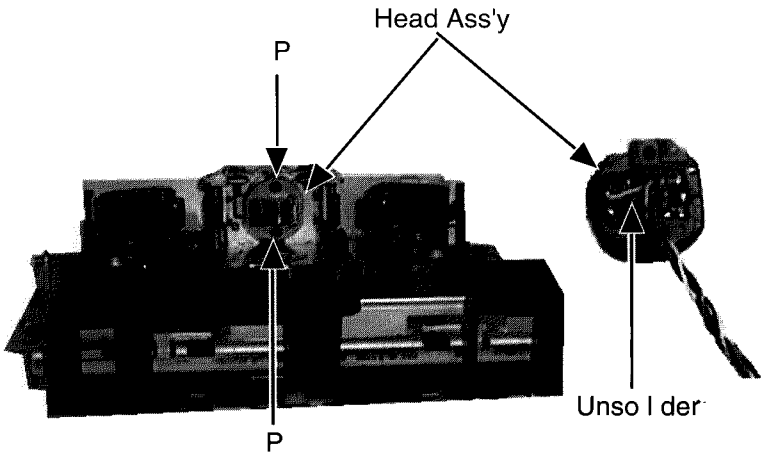


Fig.18

(15) Removing the Head ass'y

1.Remove the Cassette mech. Ass'y.
2.Remove the 2screws'O'holding the motor bracket(Fig.19a).
3.Remove the nylon washer (Fig19b).
4.Remove the Rotation Gear .
5.Remove the Head ass'y with wire ass'y.

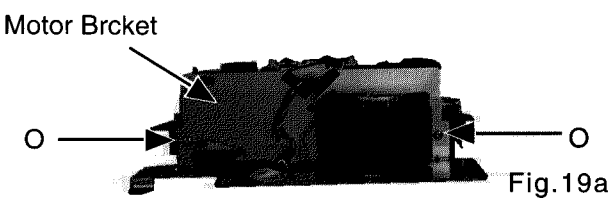


Fig.19a

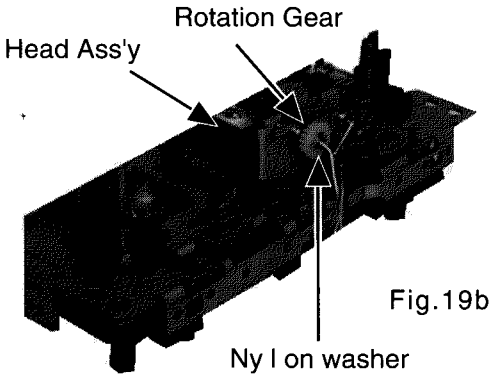
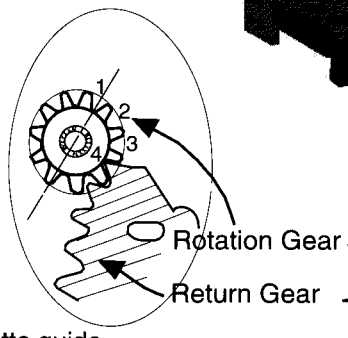
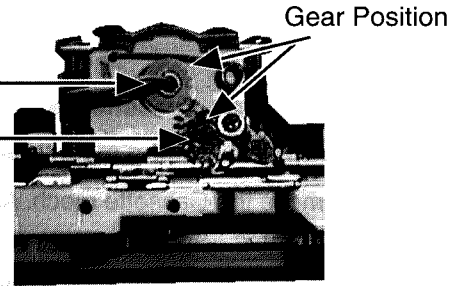


Fig.19b

(16) How to assemble the Head ass'y

1.Set the Forward playing position of the return gear and Rotation gear .
2.Attach the Nylon washer.





(17) Removing the Head ass'y

1.Remove the screw 'Q" holding the cassette guide.
2.Remove the Head chassis ass'y.

(18) How to assemble the Head chassis ass'y

1.Set the play arm position shown in the figure below(Fig.21).
2.Attach the Head chassis ass'y and chassis base.

Fig.20

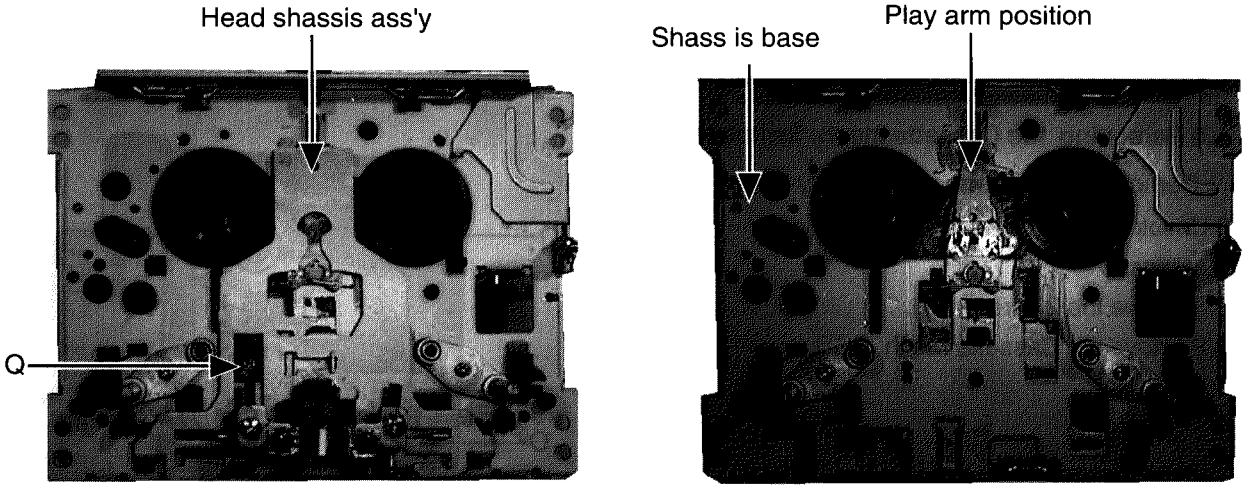


Fig.21

(19) Removing the Pinch roller

1.Remove the Deck mech. Ass'y.
2.Release the hook holding the Pinch roller.

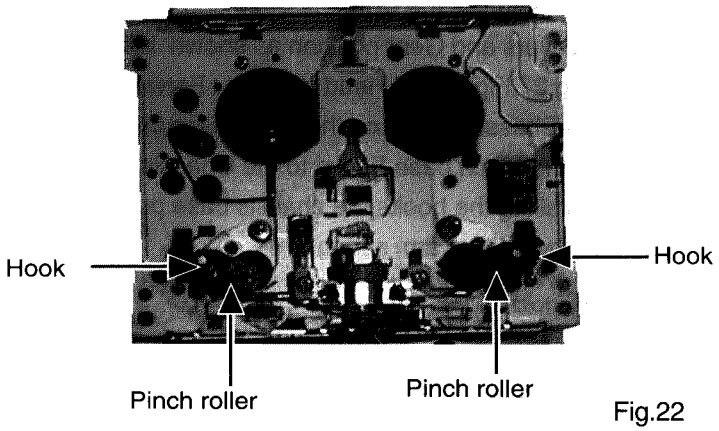


Fig.22

(20) Removing the Capstan motor .

1.Remove the Deck mech. Ass'y.
2.Remove the Belt"A".
3.Remove the 3 screws (Q).
4.Unsolder the 4 pin wire of the Capstan motor terminal.
5.Remove the Capstan motor.

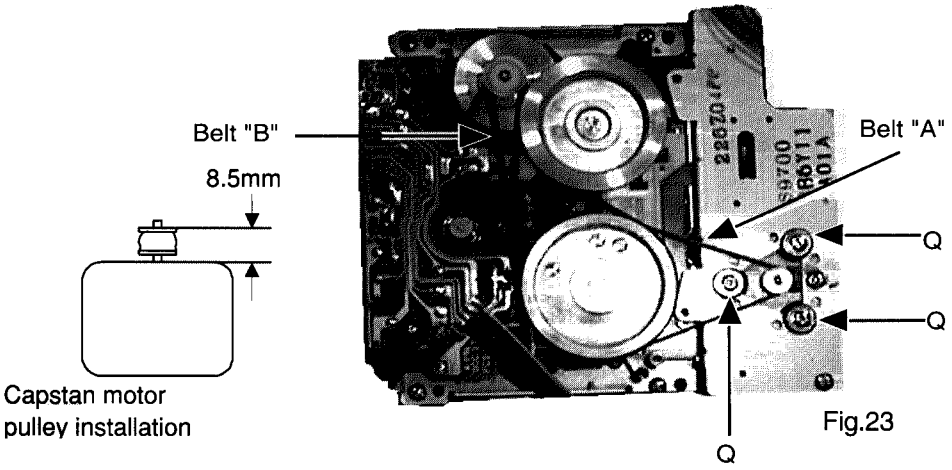


Fig.23

(21) Removing the Flywheel .

1.Remove the Deck mech. Ass'y.
2.Remove the Belt "B".
2.Remove the Nailon washer holding the Flywheel shaft.
3.Remove the Flywheel.

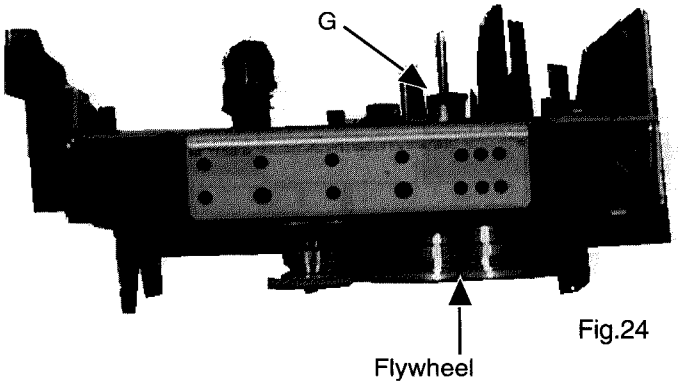


Fig.24

(22) Removing the Mech.Base

1.Remove the Deck mech. Ass'y.
2.Remove Capstan motor bracket and mech.switch PCB .
3.Remove the 4 screws (R).
4.Release the 4 Hooks holding the Control cam Ass'y.
5.Remove the Mech. Base.

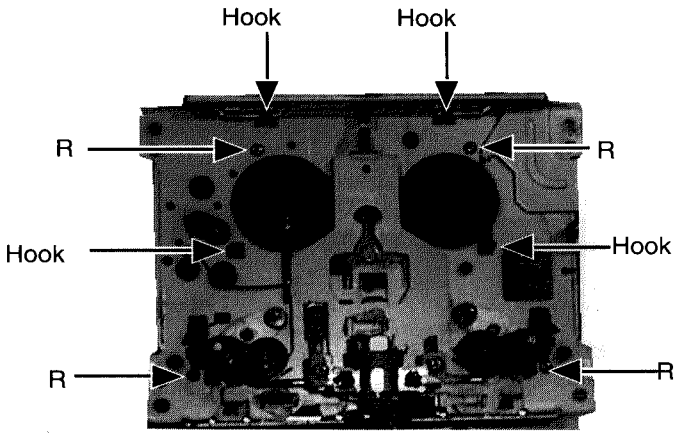


Fig.25

(23) How to assemble the Chassis base and Mech. base

1.Set the Levers and Gear position as shown in the figure below.(Fig.27,Fig.28) (Head position : Forward)

2.Unite the Chassis base and the Mech.base into one.

3.Be hook the Mech.base Fooks to the Chassis base. (When installing the hooks,the chassis base pull up littele.

4.Be hook the Trigger arm spring.

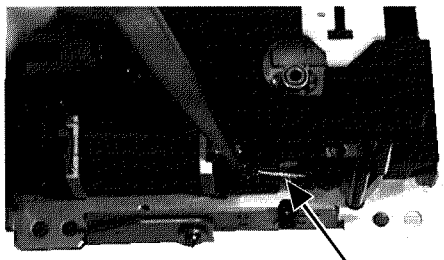


Fig.26

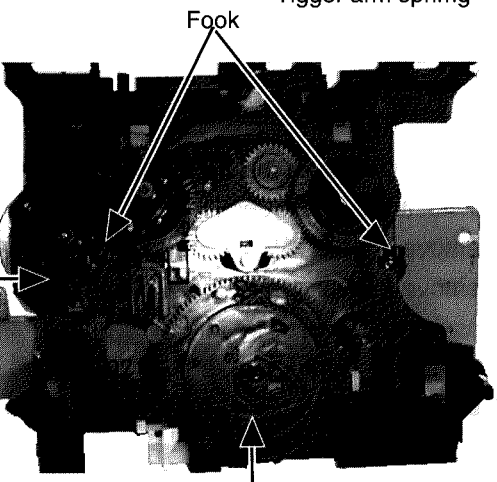


Fig.28

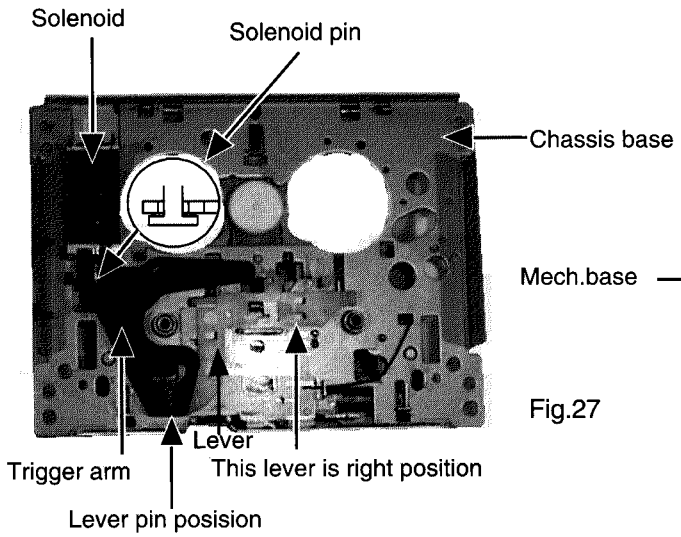


Fig.27

(24) How to install the belts

1.Install the flywheels and belts as shown in the figure below.(Fig.29,Fig.30)

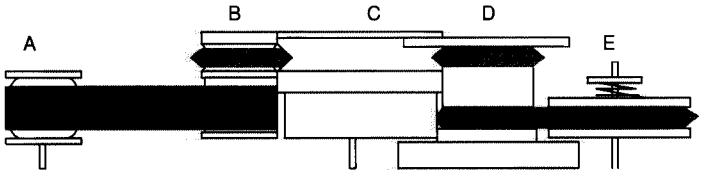


Fig.29

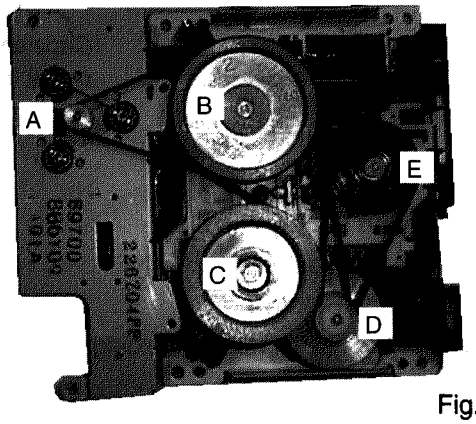


Fig.30

(25) Deassemble the Tray Ass'y

1.Remove the Cassette Tray .

2.Remove the screw 'R' and remove the Rock Arm.

3.Slide the Bracket for rear side.

4.Remove the Tray'B'ass'y from the Tray 'A' ass'y.

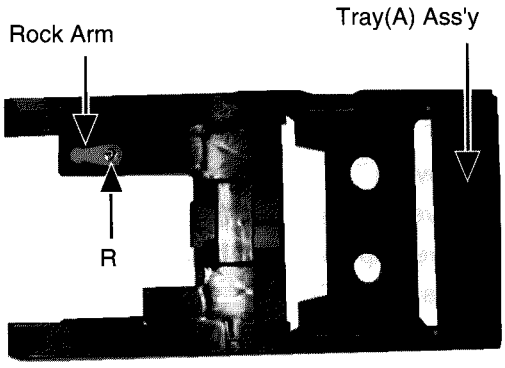


Fig.31

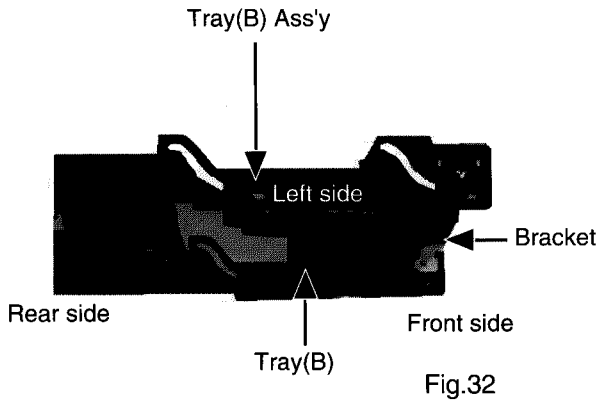


Fig.32

(26) How to assemble the Tray Ass'y

1.Slide the Tray(B) for front side (Fig.32).

2.Unite the Tray'A'ass'y and Tray 'B' ass'y.

CD Driver Mechanism Section

■ Removing the CD Mechanism Section

1.Remove the CD traverse mechanism assembly from the body.

Caution 1:Prior to removing CD traverse mechanism assembly,be sure to set alo of the sub-trays to the [STOP]mode.

Caution 2:In the case of removing the mechanism when this system has been set to the[PLAY] mode,the slide cam L on the left side of the CD traverse mechanism should be moved in the arrow A direction and positioned to A. Under this condition, the CD traverse mechanism will be lowered to the position as shown in Fig.1).

2.Remove the four screws 1 retaining the top cover(See Fig.2).

3.After pulling out the rod from the clamper, remove it together with the top cover(See Figs.2 and 2a).

4.Pull out the CD tray.

5.Remove the one screw 2 retaining the clamper (See Fig.3).

6.After moving the clamper in the arrow B direction and shifting it in the arrow C direction, take it out from the engagement section B(See Fig.3).

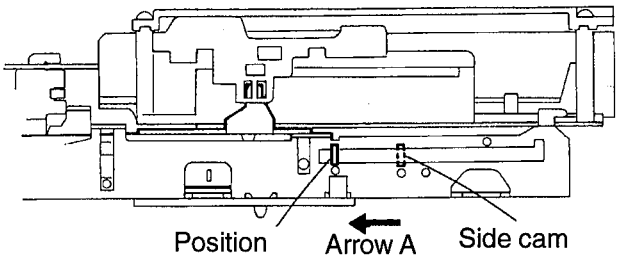


Fig.1

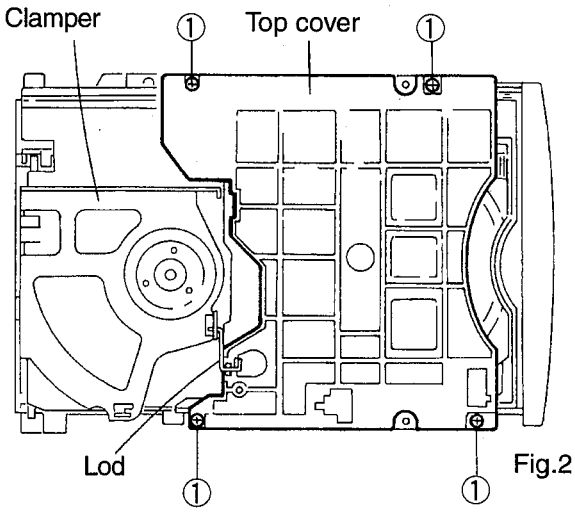
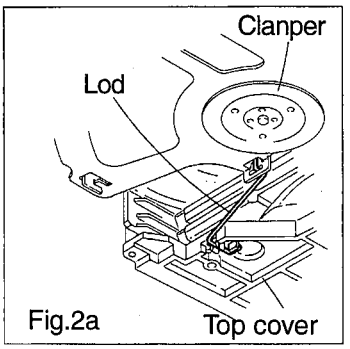


Fig.2



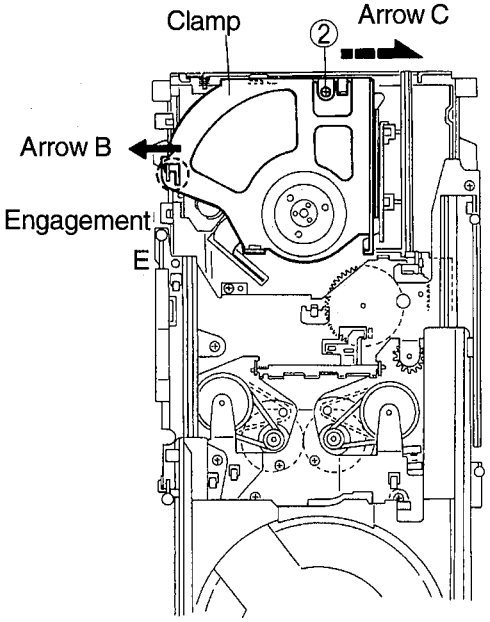


Fig.3

7. Move the center pawl in the arrow D direction and remove the stopper fixing the CD mechanism as shown in Fig.4
8. Remove snd take out the three insulators from the CD mechanism by using tweezers and so forth (See Fig.4).
9. By solderring, fill theposition (in Fig.5) of the flexible P.C.board outgoing from the CD mechanism.
10. From the connector CN601 on the CD traverse mechanism control & servo P.C.board, remove the flexible P.C.board (See Fig.5).

caution: Since it will be hard to remove the flexible P.C.board from the connector CN601 use pliers after covering with cloth, etc. so as not to cause any damage to the P.C.board and connector.

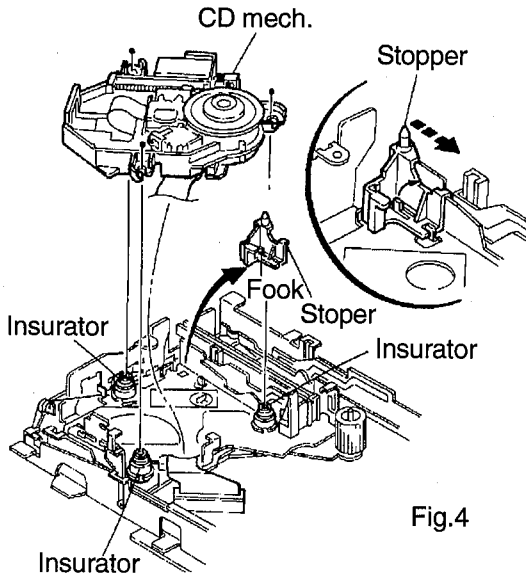


Fig.4

● Procedures for Reassembling the CD Mechanism

- In principle, reassemble the CD mechanism according to the opposite orders of the removingsteps.
  Meanwhile, be sure to remove any filed position by solderring in "Removing Step 9" above.
- After aligning the engagemants 『B』 and 『C』 at the position where the CD mechanism has been lowered as described in "Removing Steps 6 and 7", be sure to mount the mechanism straight and fix the mechanism with screws.
- After aligning the slide cam R as shown in Fig.6 (See "Removing Step 2"), mount the top cover and fix the mechanism with screws.

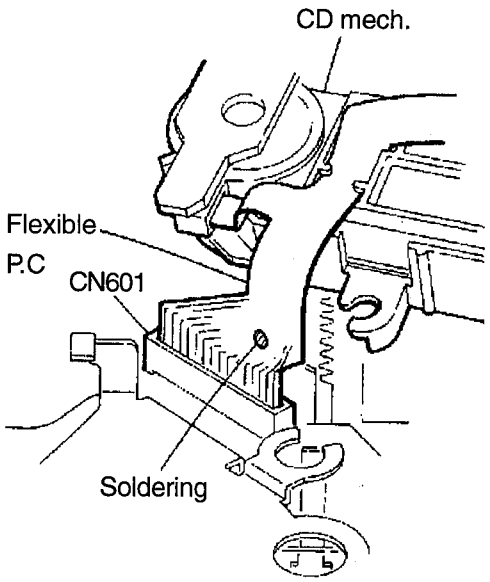


Fig.5

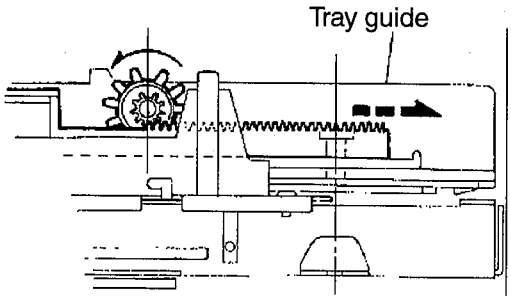


Fig.6

■ Removing the CD Tray

1.Remove the top cover.
2.Pull out the CD tray.
3.Remove the two screws ③ retaining the tray guide(L)unit(See Fig.7).
4.Disengage the two engagements D fixing the tray guide(L) unit while moving the engagements in the arrow D direction (See Fig. 8).
5.Pull out the engagement E from the mechanism chassis,and remove it togather with the CD tray (See Fig.8).

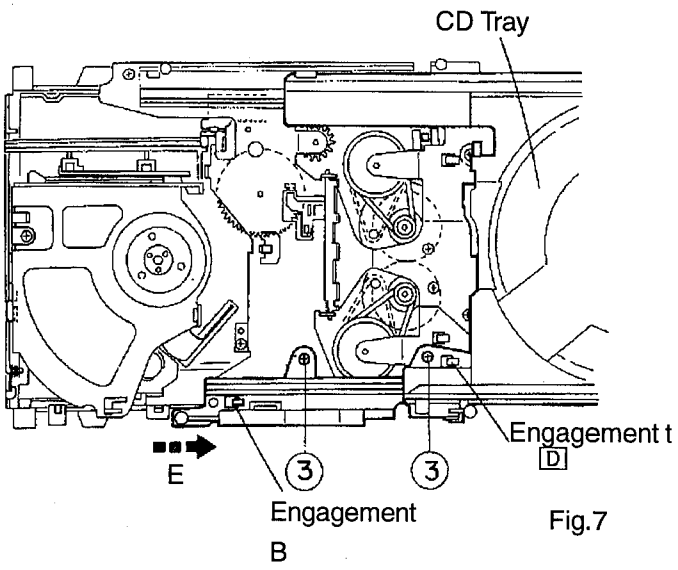


Fig.7

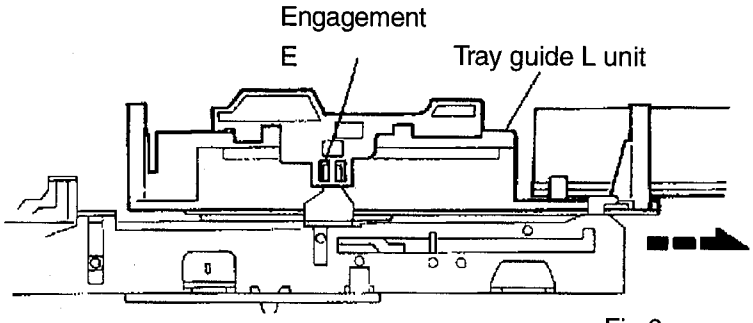


Fig.8

■Removing the CD traverse Mechanism Control & P.C.Board

1.Remove the top cover.
2.Pull out the CD tray.
3.The two belts which have been dismounted from the tray & cam drive motor should be hanged again to the motor pulley as shown in Fig.9.
4.Remove the two screws ④ retaining the tray & cam drive motor (See Fig.9).

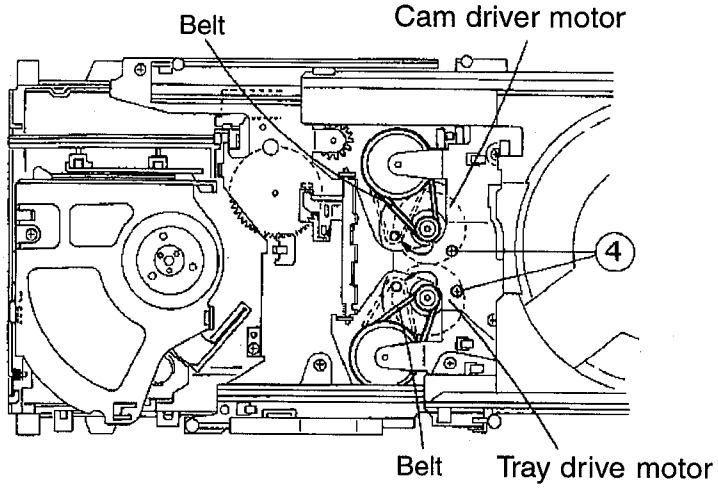


Fig.9

5.After turning over the CD traverse mechanism, remove the four screws 5 retaining the CD traverse mechanism control & servo P.C.board(See Fig.10).
6.While raising the P.C.board, perform soldering to fill the position on the flexible P.C.board outgoing from the CD pickup unit(See Fig.11).
7.After turning over the CD traverse mechanism, remove the flexible P.C.board from the connector CN601 on the CD traverse mechanism control & servo P.C.board(See Fig.11).
8.Remove the CD traverse mechanism control & servo P.C.board.

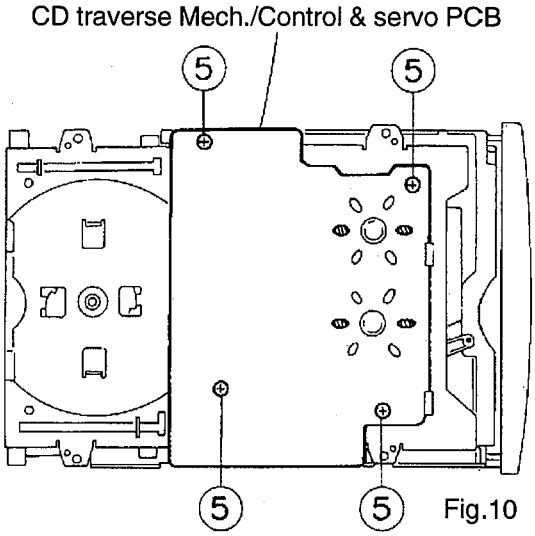


Fig.10

● Procedures for Reassembling the CD Traverse Mechanism Control & Servo P.C.Board

- In principle, this P.C.board should be reassembled according to the opposite removing steps. For mounting the CD traverse mechanism control & Servo P.C.board, insert the main switch(blue) on the P.C.board into the position inn Fig.12.
- Be sure to hang the two belts which have been dismounted from the tray & cam drive motor.

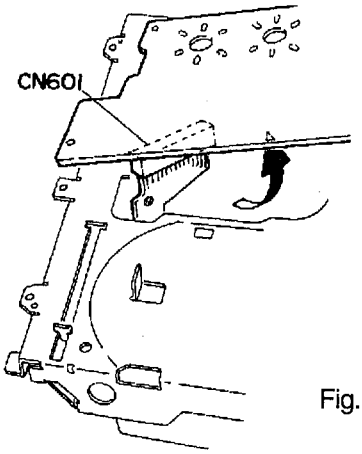


Fig.11

■ Removing the Cam and Tray Drive Motors

1.Remove the top cover.
2.Pull out the CD tray.
3.Remove the CD traverse mechanism control & servo P.C. board.
4.After removing the two soldered portions [a] on the surface of the CD traverse mechanism control & servo P.C.board, remove the tray drive motor(See Fig.13).
5.After removing the two soldered portions [b] on the surface of the CD traverse mechanism control & servo P.C.board, remove the cam drive motor(See Fog.13).

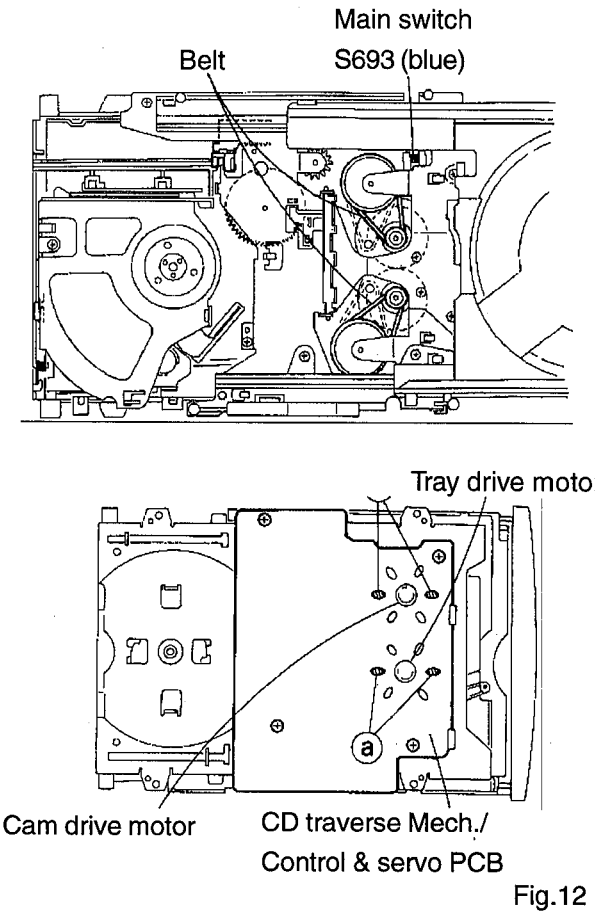


Fig.12

■ Removing the CD Pickup Unit

1. Remove the top cover.
2. Pull out the clamper.
3. Remove the CD mechanism.
4. Shift the CD pickup unit in the arrow F directoin (See Fig.14).
5. Remove the one screw ‡E retaining the shaft holder(See Fig.14).
6. After removing the two screws ⑦ retaining the rack arm. take out the S.S. gear assembly(See Fig.14).
7. By soldering, fill the position on the back surface of the CD pickup unit (See Fig.15).
8. Remove the flexible P.C.board from the connector on the back surface of the CD pickup unit.

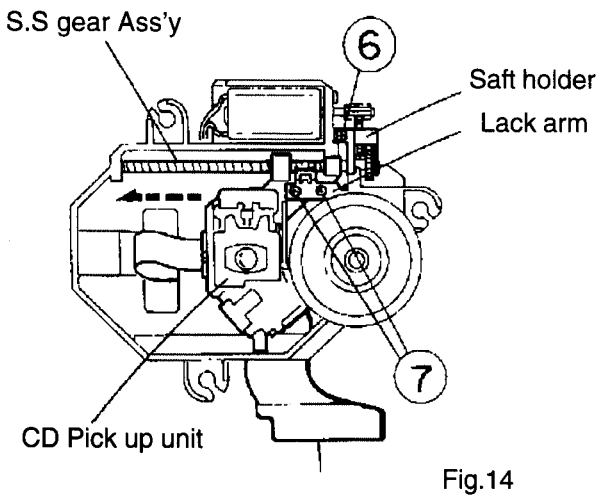


Fig.14

● Procedures for Reassembling the CD pickup unit

・ In principle, this uit should be reassembled according to the opposite order of the removing steps.

Caution

The rack arm should be screw-clamped first from the round hole.

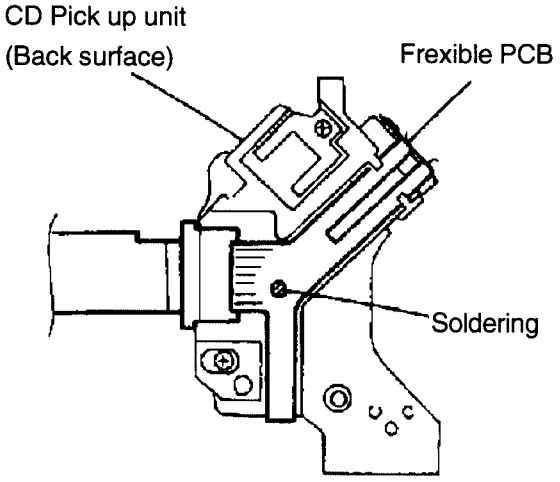


Fig.15

■ Removing the Feed Motor Assembly

1. Remove the top cover.
2. Pull out the clamper.
3. Remove the CD mechanism.
4. After removing the one screw ⑧ retaining the feed motor assembly, take out this assembly (See Fig.16).
5. After turning over the CD mechanism, remove it from the lead wire treating key way on the feed motor assembly (See Fig.16).
6. Remove the soldered portion of the lead wires (red and black) from the spindle motor P.C.board (See Fig.16).

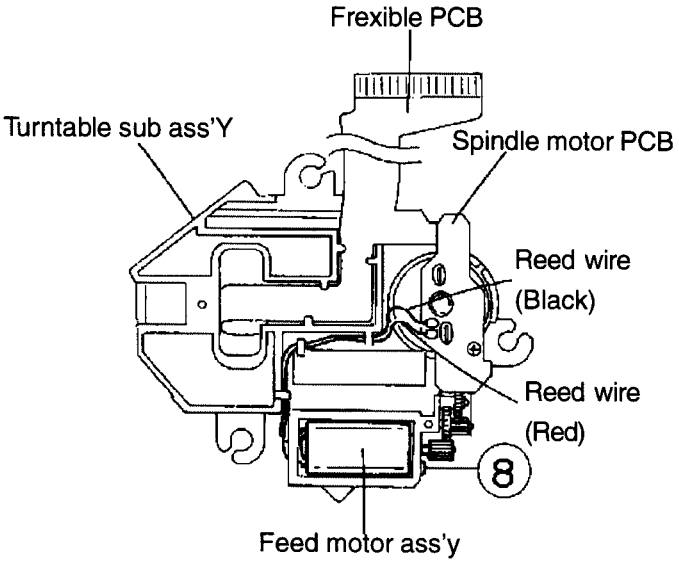
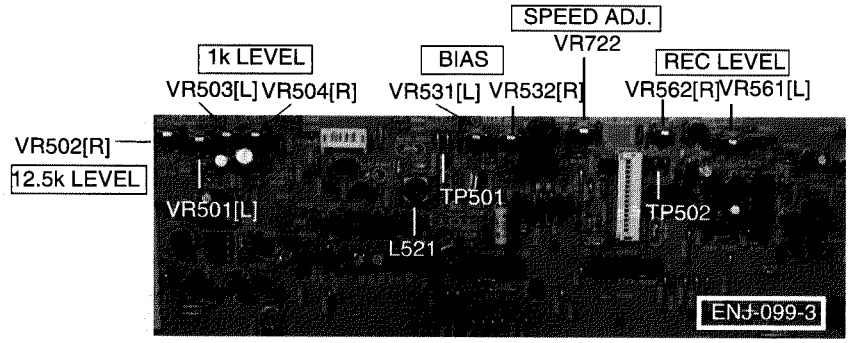
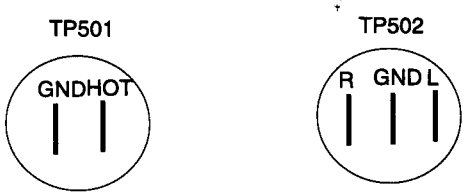


Fig.15

■ Deck Adjust point





Deck section

1.Measuring instruments

Audio freqency signal generator (0dbs output at 600ohm output terminal from 50Hz to 20kHz)
Electronic voltmeter
Frequency counter
Wow & Flutter meter
Distortion Meter with band filter
Attenuator(600 ohm impeadance)
A resistor with 600Ω

Tape No.	Frequency	Leve(Wow & Flutter)	Purpose
VTT-703L	10kHz	-10dBs	Head azimuutrh,Frequency Response
VTT-712	3000Hz	0dBs 0.025%WRMS	Tape Speed,Wow & Flutter
VTT-724	1kHz	-4dBs	Standerd Level
TMT-6447	-	-	Blank Skip
TMT-6247,TMT-6237	-	-	Music Scan
TMT-7088S	-	-	Recording standard Normal:UR
AC-712	-	-	Recording standard METAL :MA
AC-513	-	-	Recording standard CrO2:UR
TW-2111,TW2121	-	-	Forward/reverse play torque measuring
TW-2231	-	-	Feed forward/rewind torque measuring
C-120 Tape	-	-	Confirming the tape running

2.Adjustment and repairing the mechanism

Item	Adjustment method	Standard value	Remarks
Head azimuth	1.Connect an electronic viltmeter to the NR TP502 (figure2) to playback VTT-703L 2.Adjust screw [A] so that the indication of the viltmeter becomes maximum when play(▶) is pressed. 3.Adjust screw [B] so that the indication of the voltmeter becomes maximum when play(◀)	Maximum	1.Refer to figure 3. 2.When the specified characteristic cannot be obtained because of head wear,excessive magnetization,etc, replace the head assembly and adjust the head azimuth.Also,perform the electric adjustment. 3.When there is the difference of more than 3~4 dB between left and right output levels,replace the head assembly to avoid complaints.
Playback torque	1.Measure the torque in the playback mode by the torque meter.	26~72 g-cm	When the standerd torque cannot be obtained,replace the FR arm assembly or motor
Fast forward torque	1.Measure the torque in the fast forward mode by the torque meter.	75~175 g-cm	When the standerd torque cannot be obtained,replace the FR arm assembly or motor
Rewind torque	1.Measure the torque in the rewind mode by the torque meter.	75~175 g-cm	When the standerd torque cannot be obtained,replace the FR arm assembly or motor
Wow & Flutter	1.Connect the wow & flutter meter to the DOLBY TP (figure2)and play back VTT-712. 2.Its reading should be within 0.25%(WTD)	Less than 0.25%	As a comllaint may occur if the wow & flutter fluuctuates by 0.1% even though it is allowed in the standard,repairing is required.

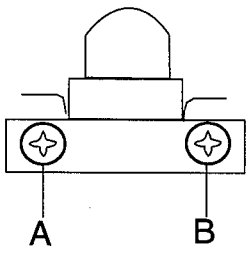


Fig.3

3.Electrical Adjustments(Make the following adjustments after adjustment the head azimuth.)

In principle, the adjustments should be made in the following sequence.
Set the NR switch to OFF and the BEAT CUT switch to " 1" .
Adjustments marked with an asterisk (*) should always be made after the head is replaced

0dBs=0.775V

Item	Adjustment method	Adjustment Location	Standard value	Remarks
Tape speed	1.Connect a frequency counter to the NR TP502 (figure 2) and play back VTT-712 . 2.Adjust the semi-fixed resistor VR722 on ENJ-099 - 3 (figure 2).	VR722	3,000Hz ±10Hz	Connect a wow & flutter meter with a builtin frequency counter to the speaker terminals.
Standard level (Playback Level)	1.Connect an electronic voltmeter to the NR TP501(figure 2) . Play back VTT-724 (1 kHz : -4dBs) to adjust the semifixed resistors.	L-VR503 R-VR504	488mV (-4dBs)	1)The playback level varies when the head is replaced so should be adjusted. Use an electronic voltmeter with an impedance of 100kΩ or more.
Playback Frequency Response	1.Connect an electronic voltmeter to the NR TP501(figure 2) . 2.Play VTT-703L(10kHz:-10dBs)and adjust semifixed resistors to obtain the standard values.	L-VR501 R-VR502	245mV (-10dBs)	———
Record/play Frequency Response (Bias current	1.Supply 1kHz and 12.5kHz with 30mV signals to VCR terminals respectively to record them. 2.Connect an electronic voltmeter to the NR TP501 (figure 2) to confirm the recorded values. 3.If the values are not satisfied,adjust the semifixed resistors and record the signal again to confirm the recorded values.	L-VR531 R-VR532	0±2dB with 1kHz as the standerd	Refer to figure 4 below. 1)The recording and playback frequency response of a cassette deck are adjusted by adjusting the bias. 2)Perform the adjustment with normal tape and confirm that the values are within the range for metal tape.

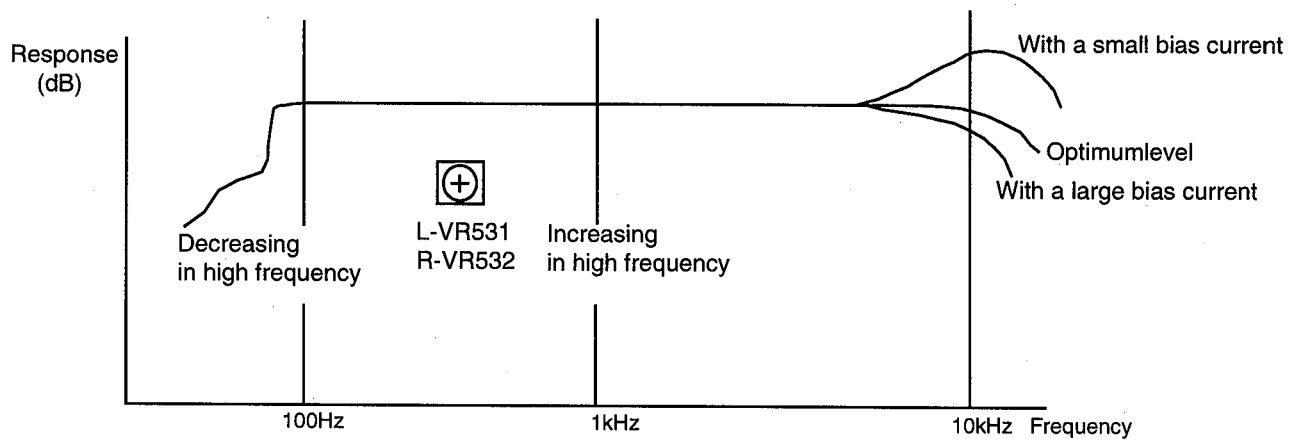
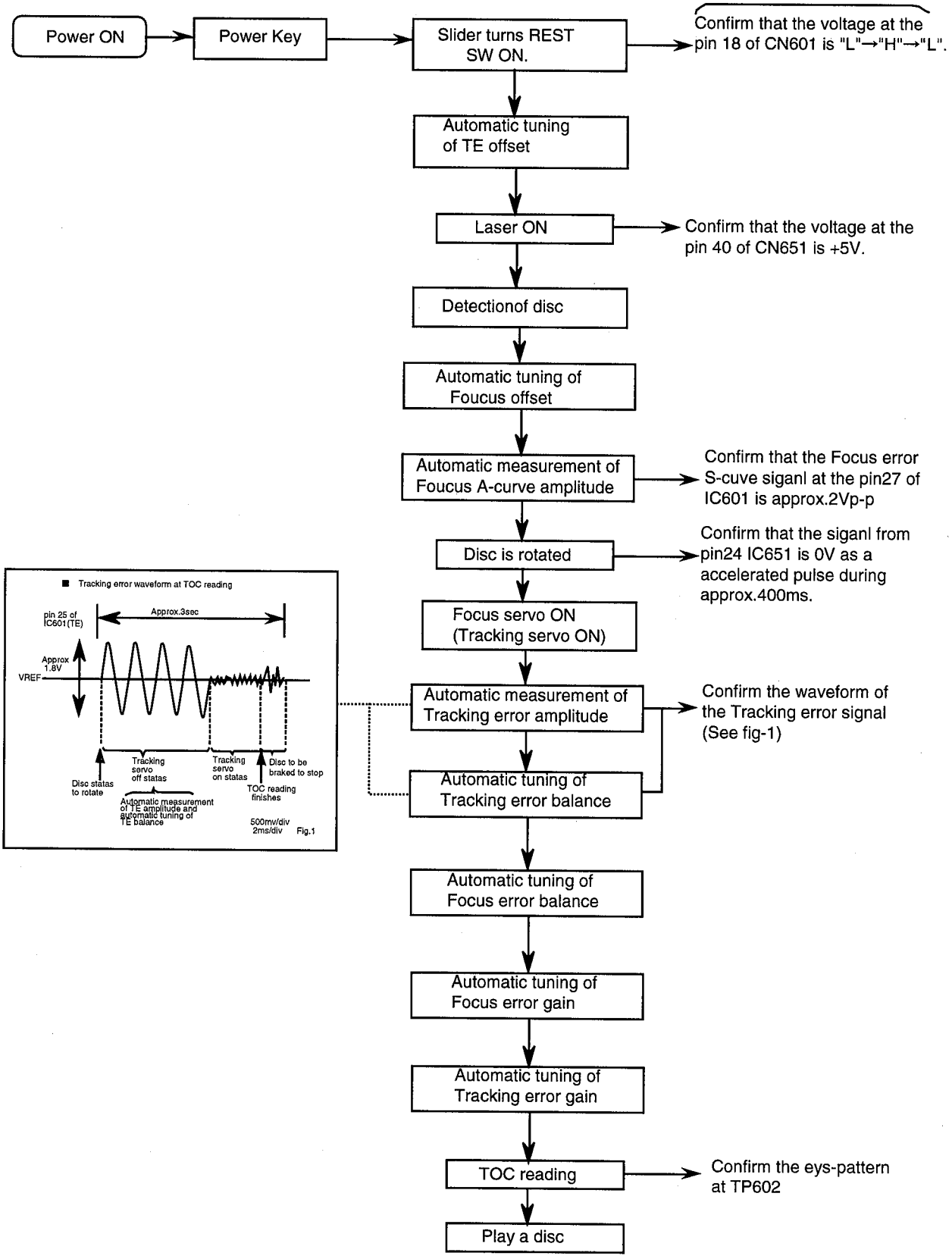


Fig.4

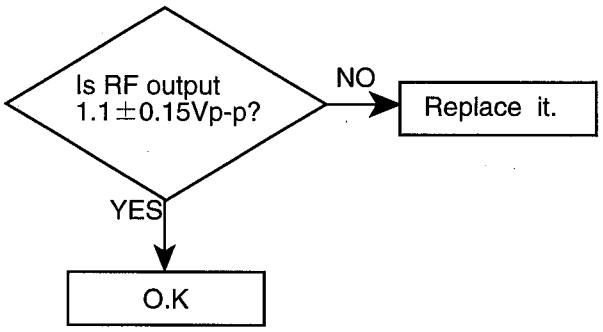
Flow of Functional Operation Until TOC Read


Power ON
Power Key
Slider turns REST SW ON.
Confirm that the voltage at the pin 18 of CN601 is "L"→"H"→"L".
Automatic tuning of TE offset
Laser ON
Confirm that the voltage at the pin 40 of CN651 is +5V.
Detectionof disc
Automatic tuning of Foucus offset
Automatic measurement of Foucus A-curve amplitude
Confirm that the Focus error S-cuve siganl at the pin27 of IC601 is approx.2Vp-p
Disc is rotated
Confirm that the siganl from pin24 IC651 is 0V as a accelerated pulse during approx.400ms.
Focus servo ON (Tracking servo ON)
Automatic measurement of Tracking error amplitude
Confirm the waveform of the Tracking error signal (See fig-1)
Automatic tuning of Tracking error balance
Automatic tuning of Focus error balance
Automatic tuning of Focus error gain
Automatic tuning of Tracking error gain
TOC reading
Confirm the eys-pattern at TP602
Play a disc
■ Tracking error waveform at TOC reading
pin 25 of IC601(TE)
Approx.3sec
Approx 1.8V
VREF
Disc statas to rotate
Tracking servo off statas
Tracking servo on statas
Disc to be braked to stop
TOC reading finishes
Automatic measurement of TE amplitude and automatic tuning of TE balance
500mv/div
2ms/div
Fig.1

Maintenance of Laser Pickup

(1) Cleaning the pick up lens
Befor you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

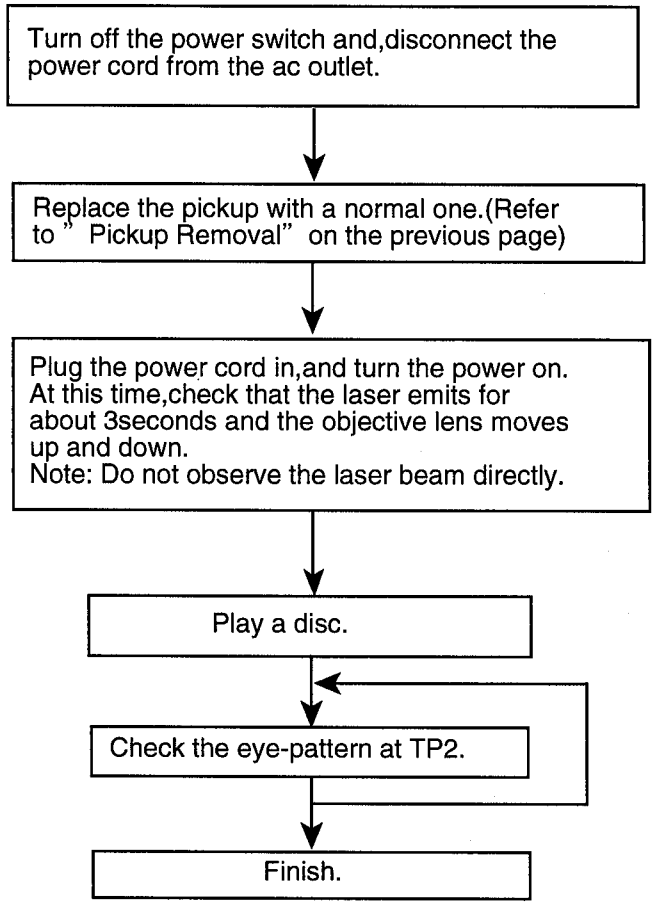
(2) Life of the laser diode (Fig.1)
When the life of the laser diode has expired, the following symptoms wil appear.
(1) The level of RF output (EFM output:amplitude of eye pattern) will be low.



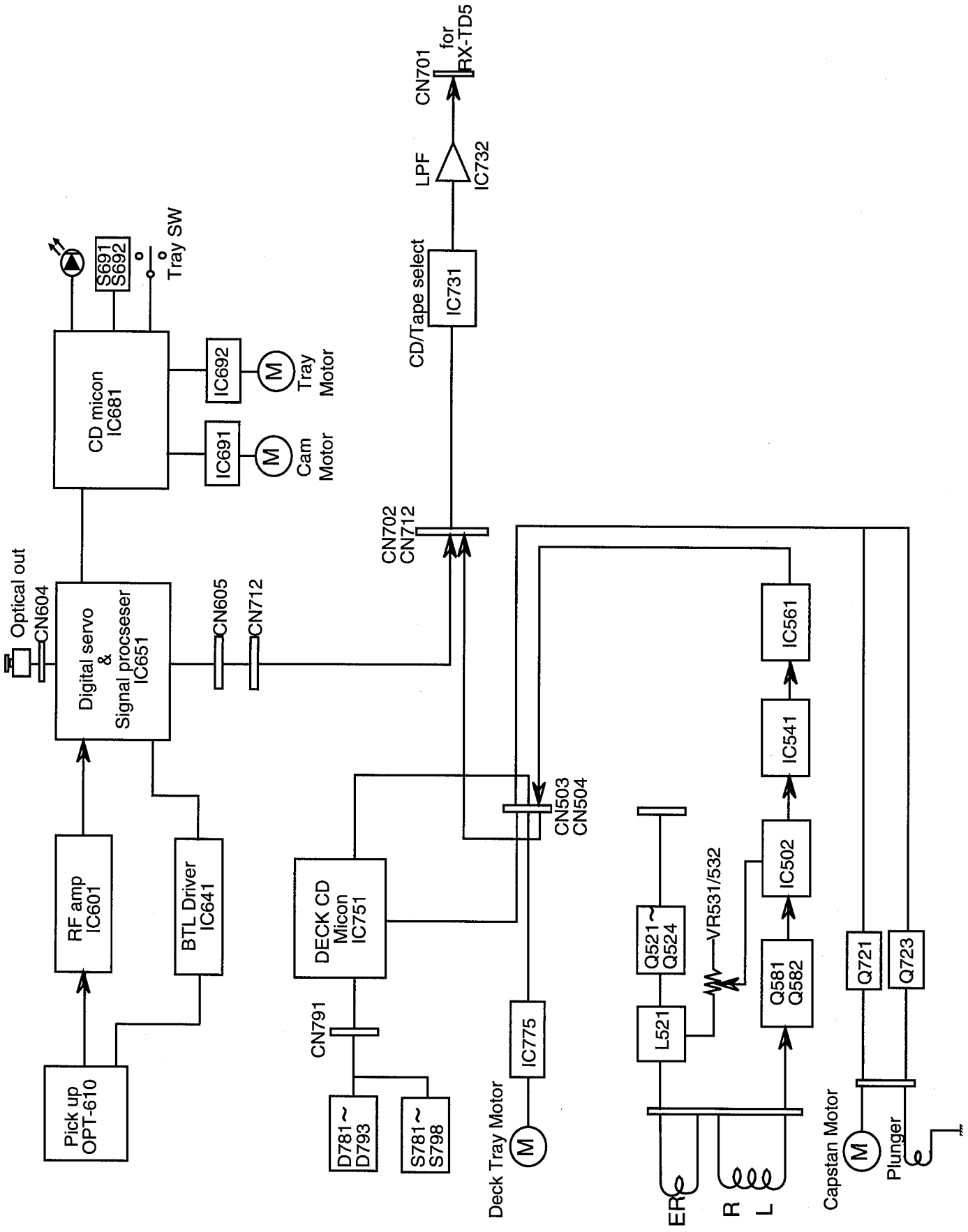
(Fig.1)

(3) Semi-fixed resistor on the APC PC board
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power.Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.
If the laser power is lower than the specified value,the laser diode is almost worn out, and the laser pickup should be replaced.
If the semi-fixed resistor is adjusted while the pickup is functioning normally,the laser pickup may be damaged due to excessive current.

Replacement of Laser Pickup

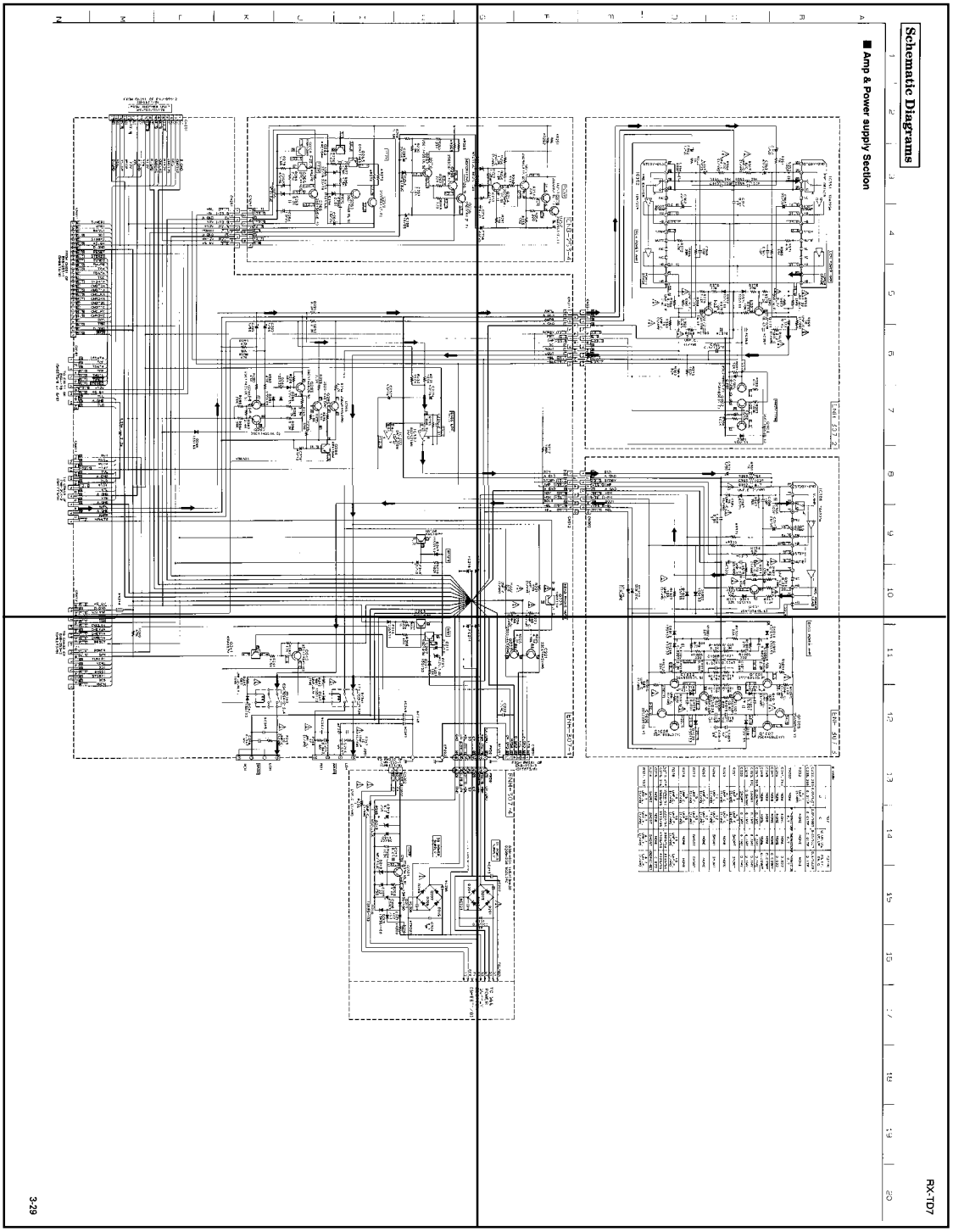

Turn off the power switch and,disconnect the power cord from the ac outlet.
Replace the pickup with a normal one.(Refer to " Pickup Removal" on the previous page)
Plug the power cord in,and turn the power on. At this time,check that the laser emits for about 3seconds and the objective lens moves up and down.
Note: Do not observe the laser beam directly.
Play a disc.
Check the eye-pattern at TP2.
Finish.

Block Diagram

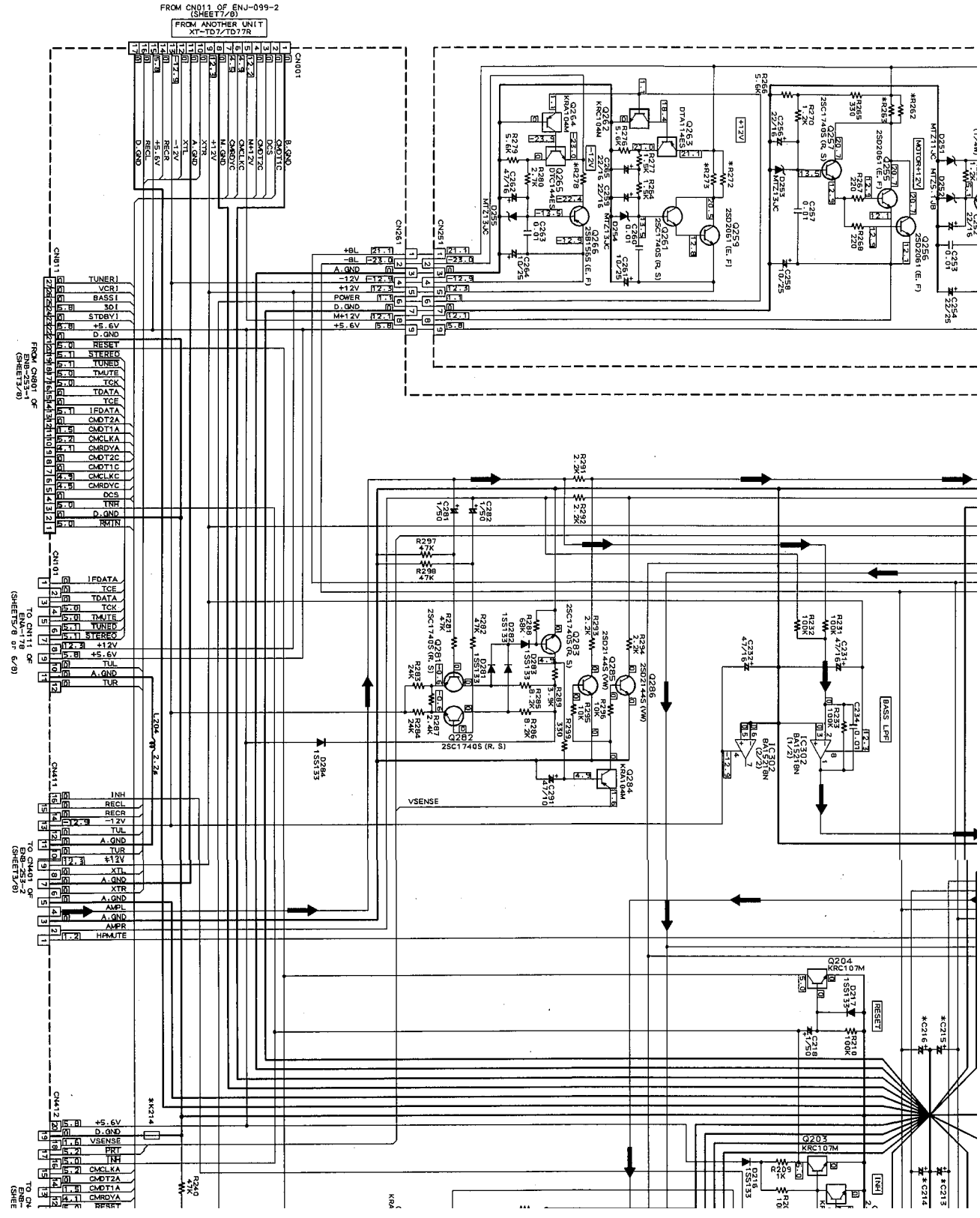


—— MEMO ——

P3-29-a P3-29-b

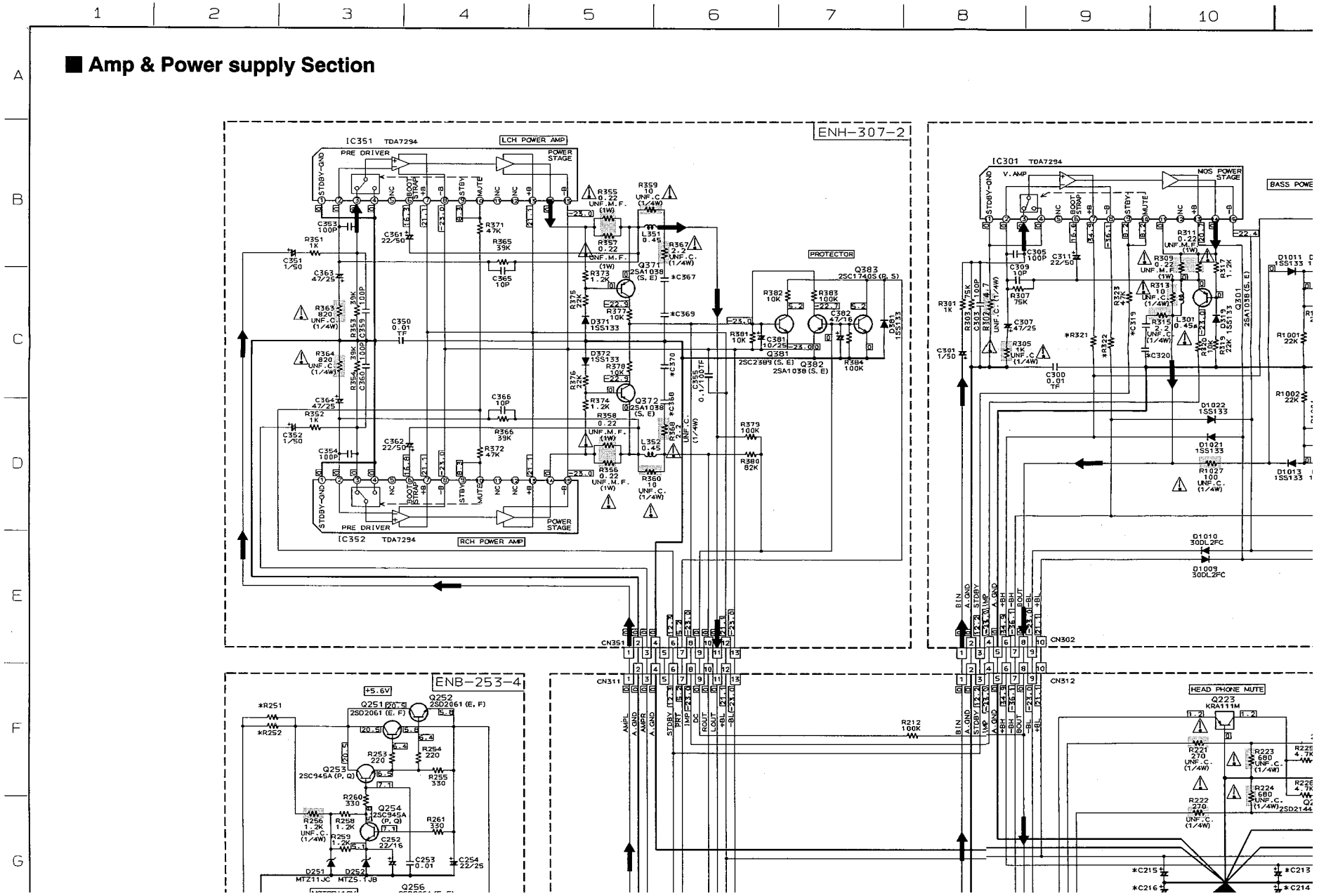


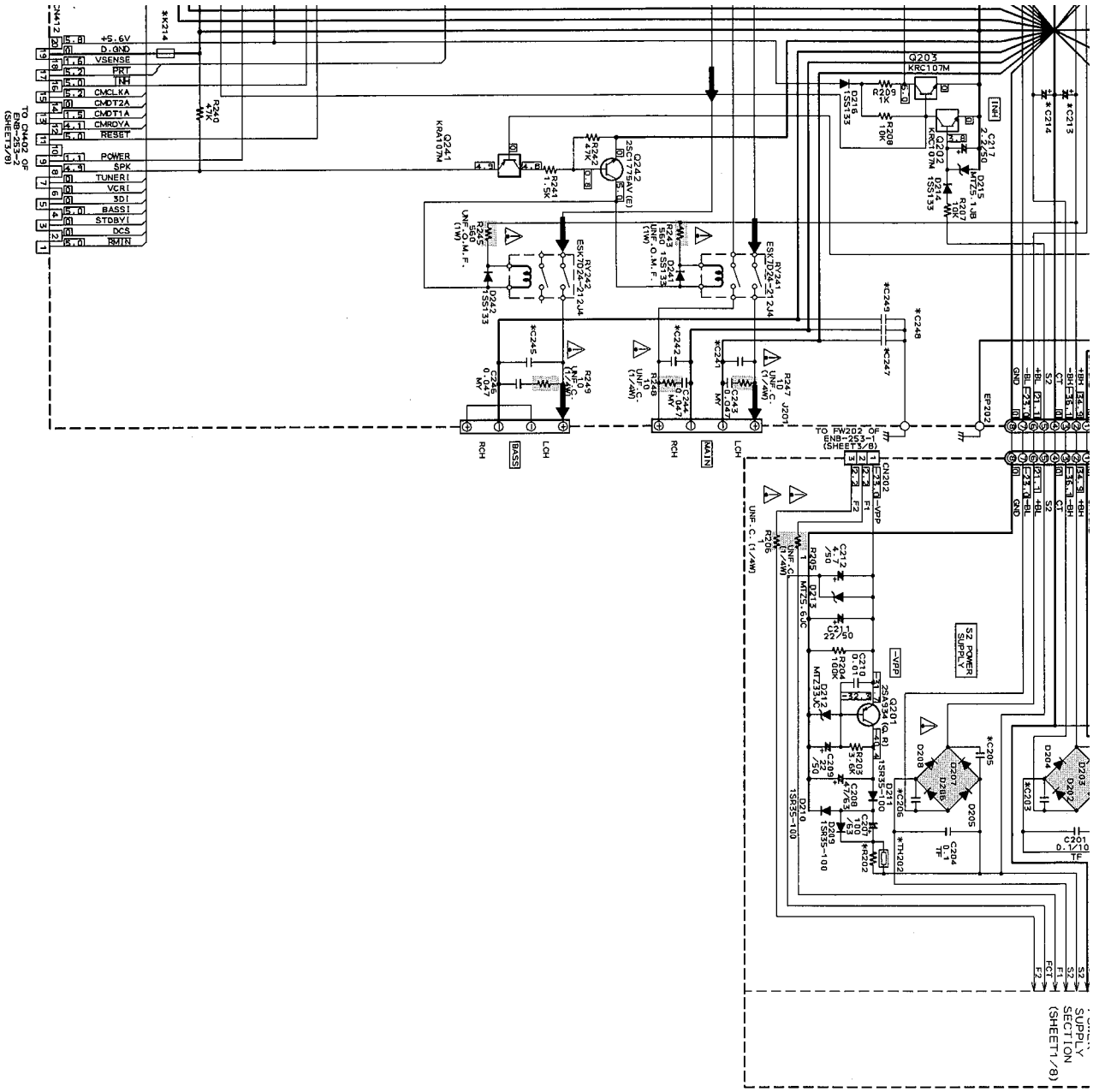
P3-29-c P3-29-d


FROM CN011 OF ENJ-099-2 (SHEET7/8)
FROM ANOTHER UNIT XT-TD7/TD77R
CN001
CN261
CN251
CN811
CN101
CN411
CN412
TO CN111 OF ENA-178 (SHEET5/8 or 6/8)
TO CN401 OF ENB-253-2 (SHEET5/8)
TUNERJ
VCRJ
BASSJ
3DJ
STDBYJ
+5.6V
D.GND
RESET
STEREO
TUNED
TMUTE
TCK
TDATA
TCE
IFDATA
CMDT2A
CMDT1A
CMCLKA
CMRDYA
CMDT2C
CMDT1C
CMCLKC
CMRDYC
DCS
INH
RMTN
TUL
TUR
A.GND
+12V
XTL
XTR
AMPL
AMPR
HPMUTE
VSENSE
PRT
RECL
RECR
-12V
BASS LPF
IC302 BA15218N (1/2)
IC303 BA15218N (2/2)
Q204 KRC107M
Q203 KRC107M
RESET
INH
MOTOR+12V
POWER
M+12V

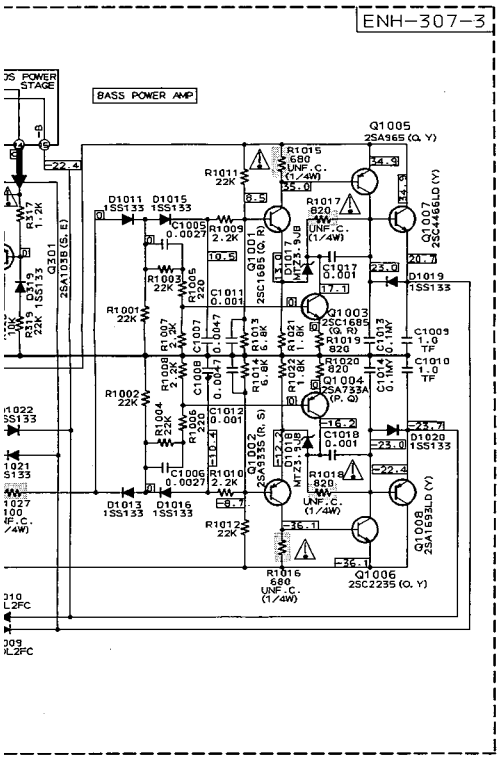
Schematic Diagrams

■ Amp & Power supply Section



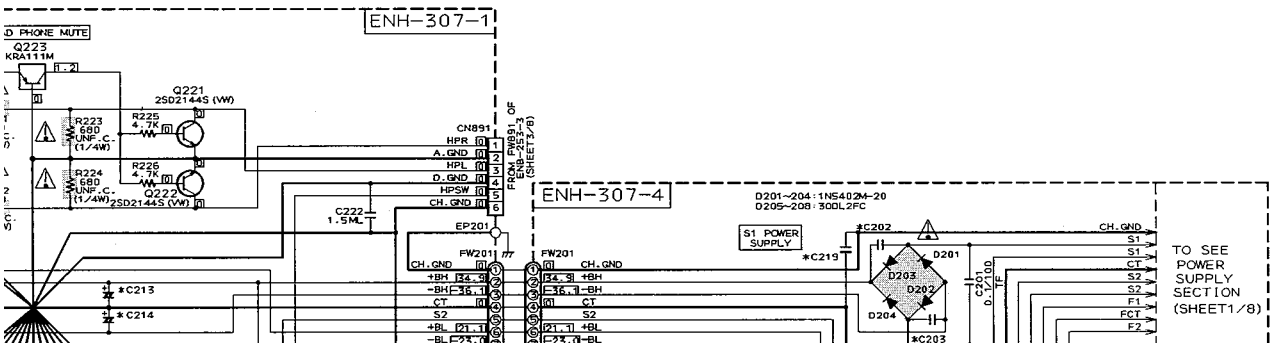

CN412
+5.6V
D.GND
VSENSE
PRT
INH
CMCLKA
CMDT2A
CMDT1A
CMRDYA
RESET
POWER
SPK
TUNER!
VCR!
3D!
BASS!
STDBY!
DCS
RMIN
TO CN402 OF B-2552-(SHEET5/8)
*K214
R240 1K
Q241 KRA107M
R242 47K
Q242 2SA1048 (E)
R241 15K
RY242 ESK7D24-2124
RY241 ESK7D24-2124
R245 UNF. 0.M.F. (1W)
R243 UNF. 0.M.F. (1W)
D247 1SS133
D241 1SS133
*C245
*C242
*C241
*C243
*C249
*C248
*C247
C247 0.047 MY
C241 0.047 MY
C243 0.047 MY
R249 UNF. C. (1/4W)
R248 10 UNF. C. (1/4W)
R247 10 UNF. C. (1/4W)
J201
RCH
BASS
LCH
RCH
MAIN
LCH
Q203 KRC107M
R209 10K
R208 2.2K
D216 1SS133
Q202 KRC107M
D215 MTZ5.1B
R207 10K
C217 2.2/50
*C214
*C213
EP202
TO FW202 OF ENB-253-(SHEET5/8)
CN202
-VPP
F1
F2
R206 UNF. C. (1/4W)
C212 4.7/50
R205
D213 MTZ5.6JC
C211 22/50
C210 0.01
R204 100K
D212 MTZ33JC
Q201 2SA934 (Q,R)
R203 3.6K
C209 /50
C208 4.7/63
D211 1SR35-100
D210 1SR35-100
C207 /E3
D209 1SR35-100
*R202
*TH202
C204 0.1 TF
*C206
D208
D207
D206
D205
*C205
D204
D203
*C203
S2 POWER SUPPLY
FCT
S2
SUPPLY SECTION (SHEET1/8)

10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20

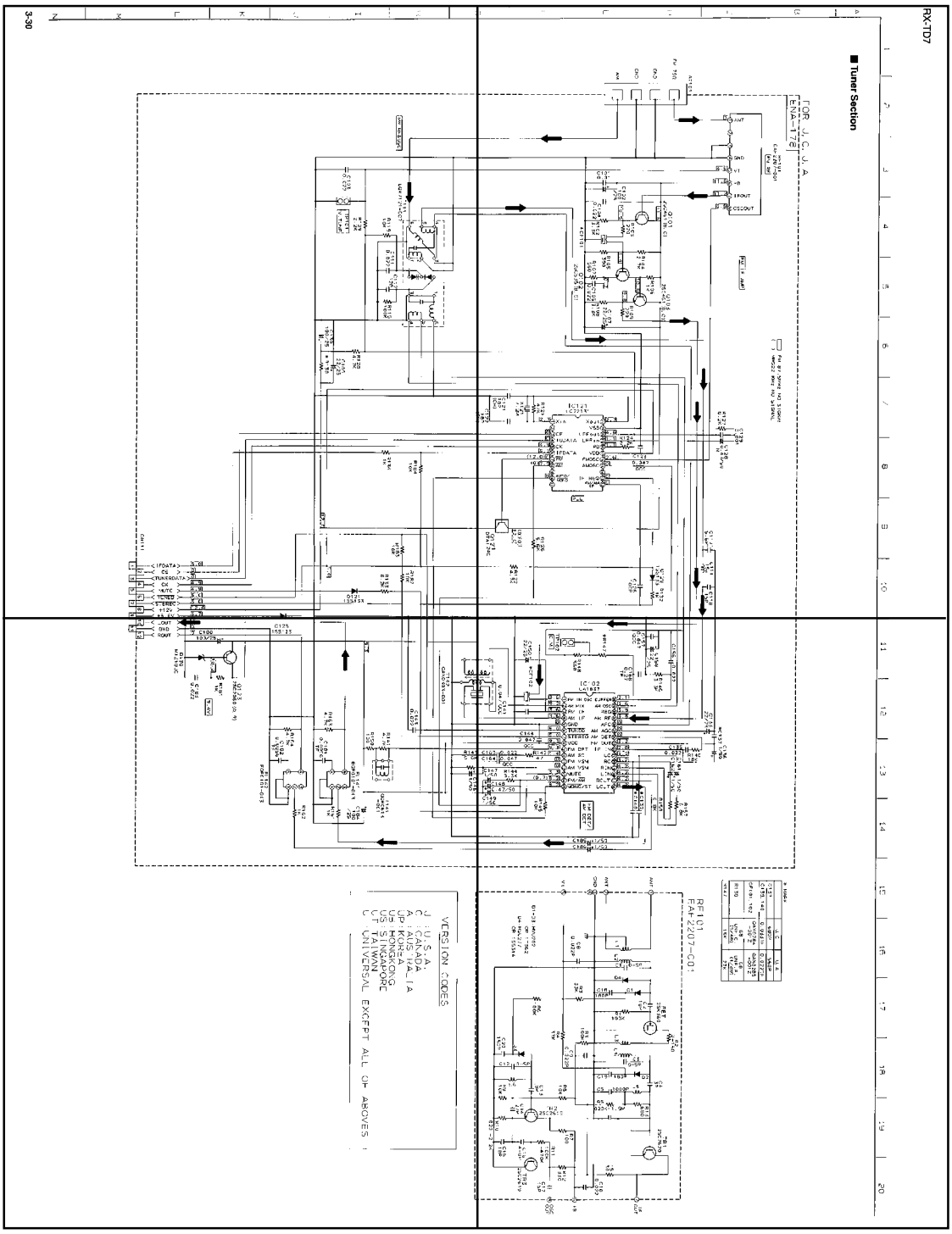


* MARK

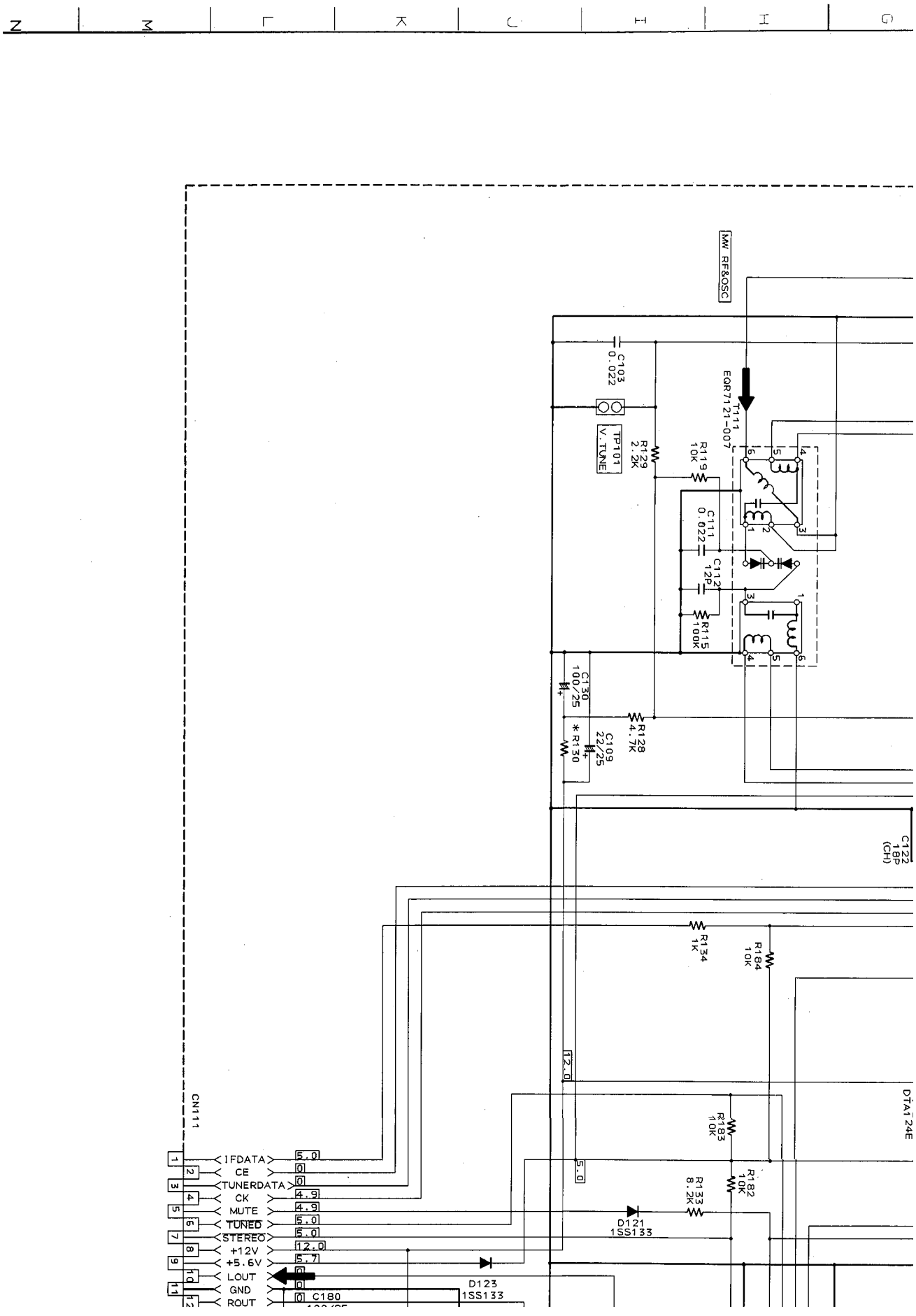
	TD7			TD77R
	J	C	U, UB, US, UT, UP	BS, EF, EN, G
C202, 203	0.01/100TF	0.01/100TF	0.01/100TF	0.1/100TF
C205, 206	0.01TF	0.01TF	0.01TF	0.1TF
R202	4.7 UNF.C. (1/4W)	NONE	NONE	NONE
TH202	NONE	P.THERMISTOR 4.7	P.THERMISTOR 4.7	P.THERMISTOR 4.7
C241, 242	NONE	NONE	NONE	0.022
C245	NONE	NONE	NONE	0.022
C247	NONE	NONE	NONE	0.039MY
C248	NONE	NONE	NONE	0.039MY
C249	NONE	NONE	NONE	0.039MY
C367, 368	0.047MY	0.1MY	0.1MY	0.1MY
C369, 370	SHORT	0.1MY	0.1MY	0.1MY
C319	0.047MY	0.1MY	0.1MY	0.1MY
C320	SHORT	0.1MY	0.1MY	0.1MY
R251	4.7 UNF.C. (1/4W)	4.7 UNF.C. (1/4W)	SHORT	SHORT
R252	4.7 UNF.C. (1/4W)	4.7 UNF.C. (1/4W)	NONE	NONE
R262	12 UNF.C. (1/4W)	12 UNF.C. (1/4W)	SHORT	SHORT
R263	12 UNF.C. (1/4W)	12 UNF.C. (1/4W)	NONE	NONE
R272	15 UNF.C. (1/4W)	15 UNF.C. (1/4W)	SHORT	SHORT
R273	15 UNF.C. (1/4W)	15 UNF.C. (1/4W)	NONE	NONE
R278	10 UNF.C. (1/4W)	10 UNF.F. (1/4W)	10 UNF.F. (1/4W)	10 UNF.F. (1/4W)
C213, 214	2200/50	2200/50	3300/50	3300/50
C215, 216	3300/35	3300/35	4700/35	4700/35
C219	NONE	NONE	NONE	0.022
K214	SHORT	SHORT	SHORT	EXZ8101-007
R321, 322	4.7 UNF.C. (1/4W)	4.7 UNF.F. (1/4W)	4.7 UNF.F. (1/4W)	4.7 UNF.F. (1/4W)



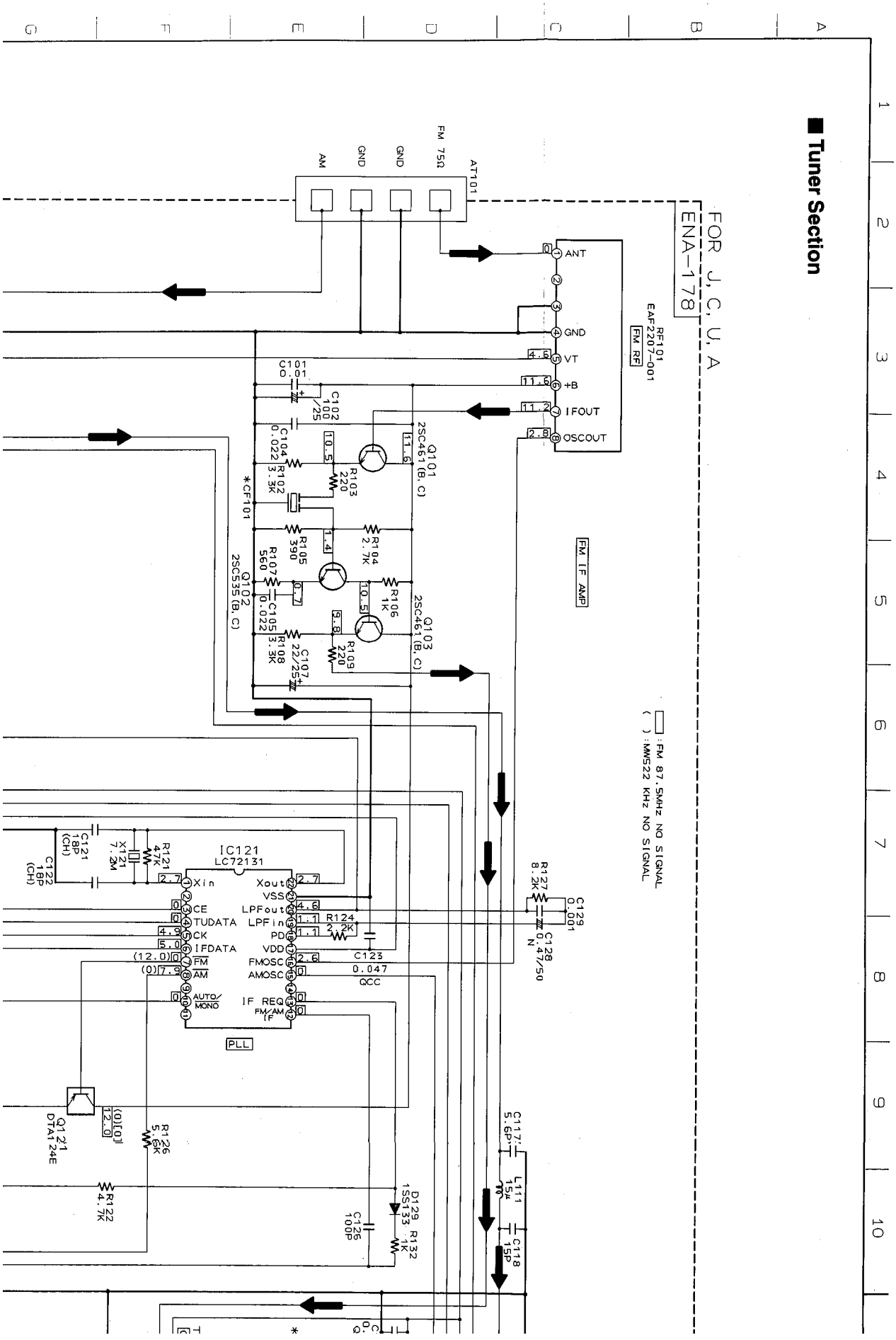
P3-30-a P3-30-b

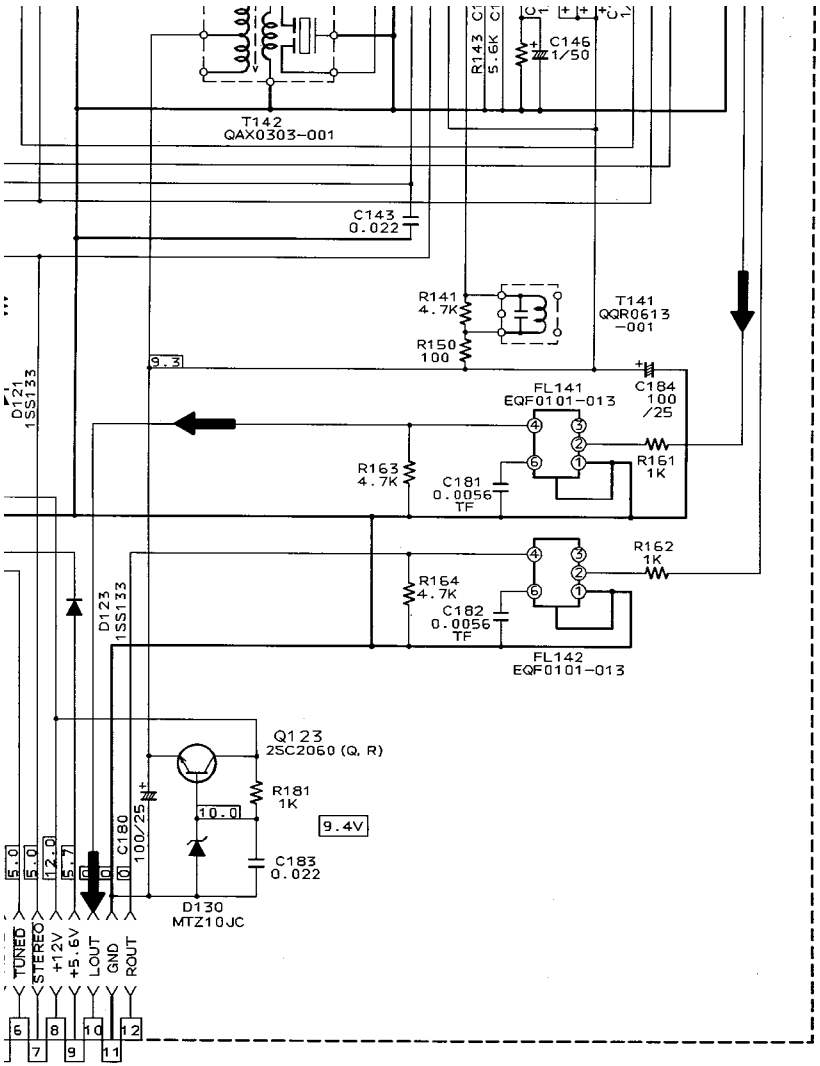


P3-30-c P3-30-d


N
M
L
K
J
H
G
MW RF&OSC
C103 0.022
TP101 V.TUNE
R129 2.2K
R119 10K
T111 EQR7121-007
C111 0.022
C112 12P
R115 100K
C130 100/25
* R130
C109 22/25
R128 4.7K
C122 18P (CH)
R134 1K
R184 10K
R183 10K
R182 10K
R133 8.2K
D121 1SS133
D123 1SS133
C180
CN111
IFDATA
CE
TUNERDATA
CK
MUTE
TUNED
STEREO
+12V
+5.6V
LOUT
GND
ROUT
DTA1 24E

■ Tuner Section

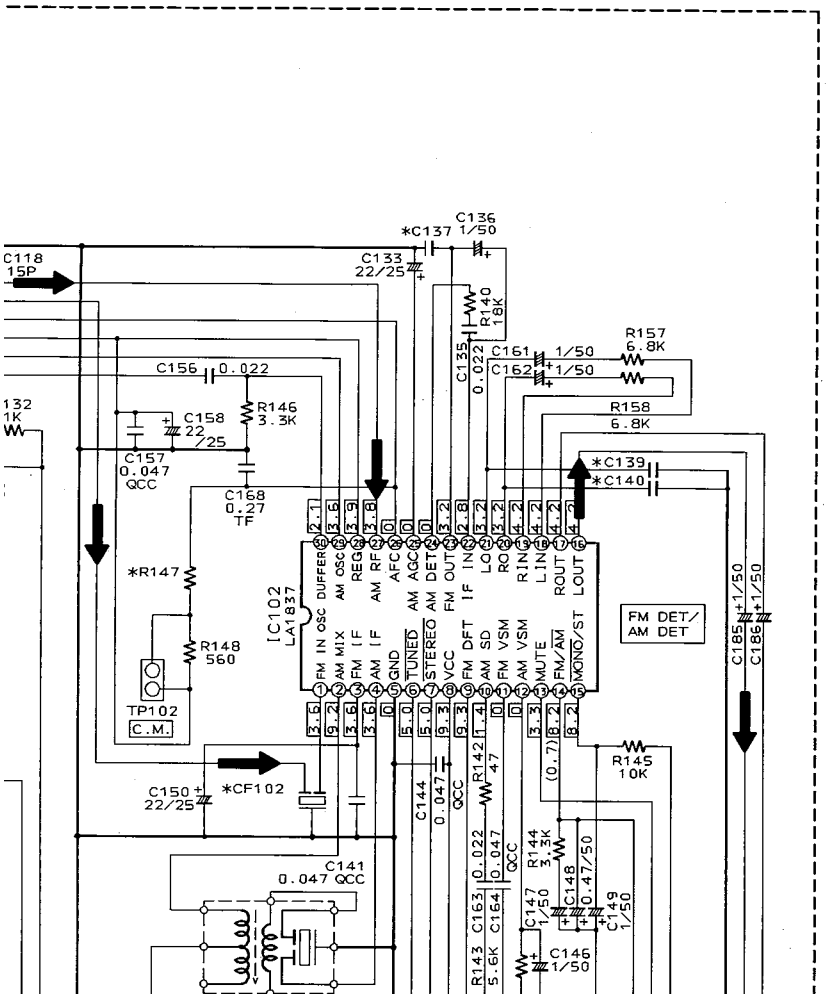




VERSION CODES

J : U.S.A.
C : CANADA
A : AUSTRALIA
UP : KOREA
UB : HONGKONG
US : SINGAPORE
UT : TAIWAN
U : UNIVERSAL EXCEPT ALL OF ABOVES

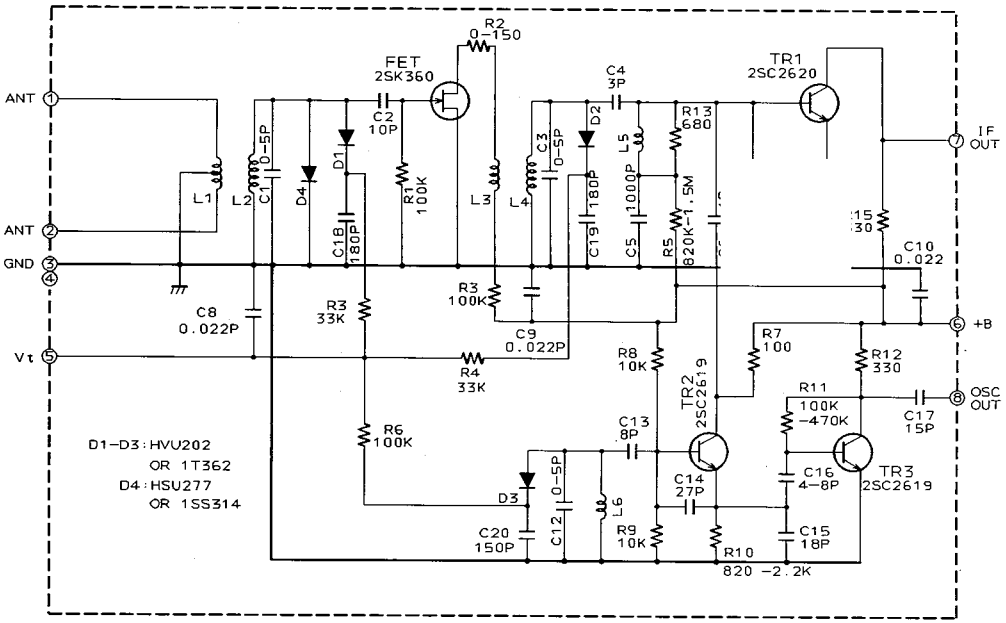
11 12 13 14 15 16 17 18 19 20



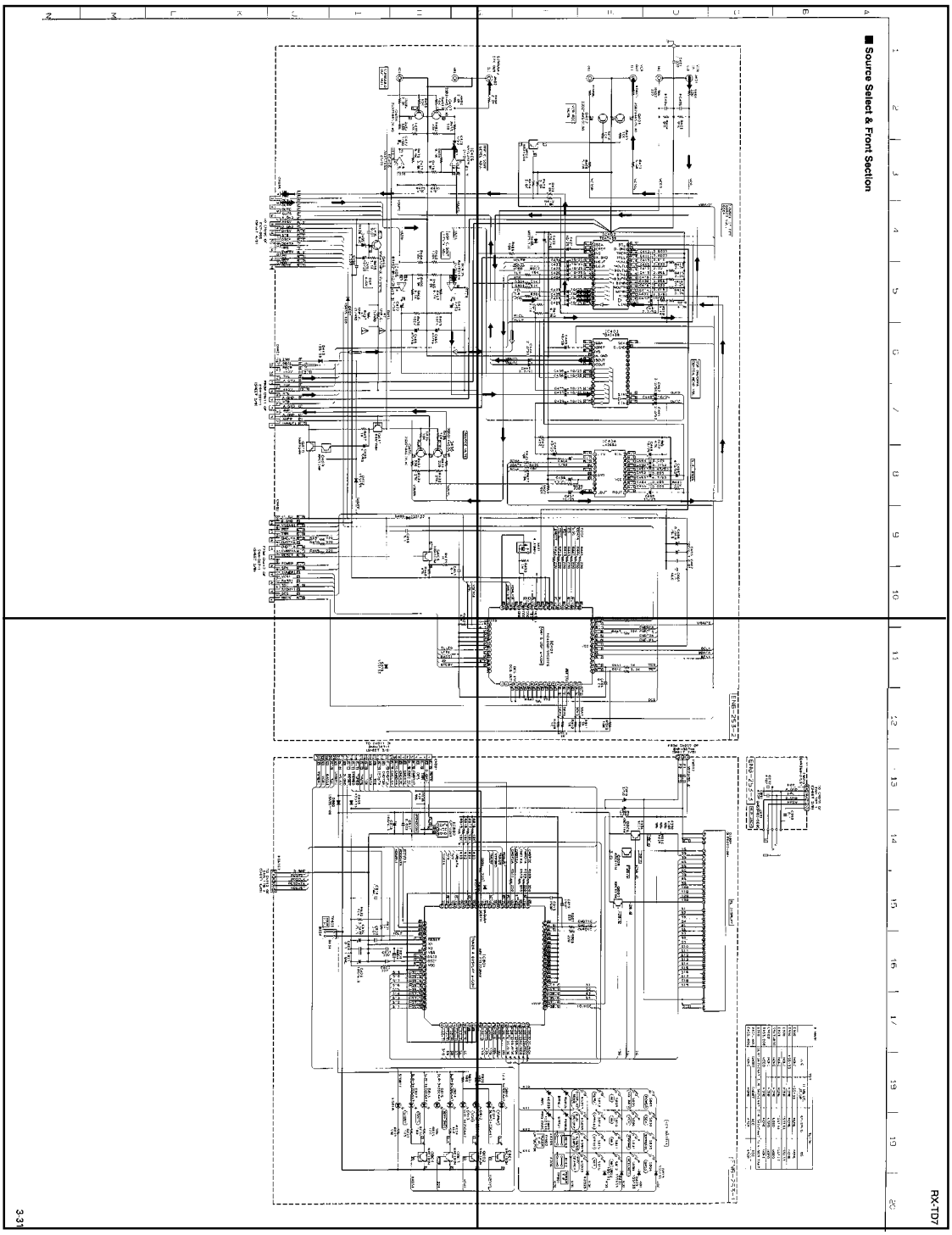
* MARK

	J, C	U, A
C137	680P	560P
C139, 140	0.033TF	0.022TF
CF101, 102	QAX0284 -001Z	QAX0285 -001Z
R130	68 UNF.C. (1/4W)	68 UNF.F. (1/4W)
R147	15K	27K

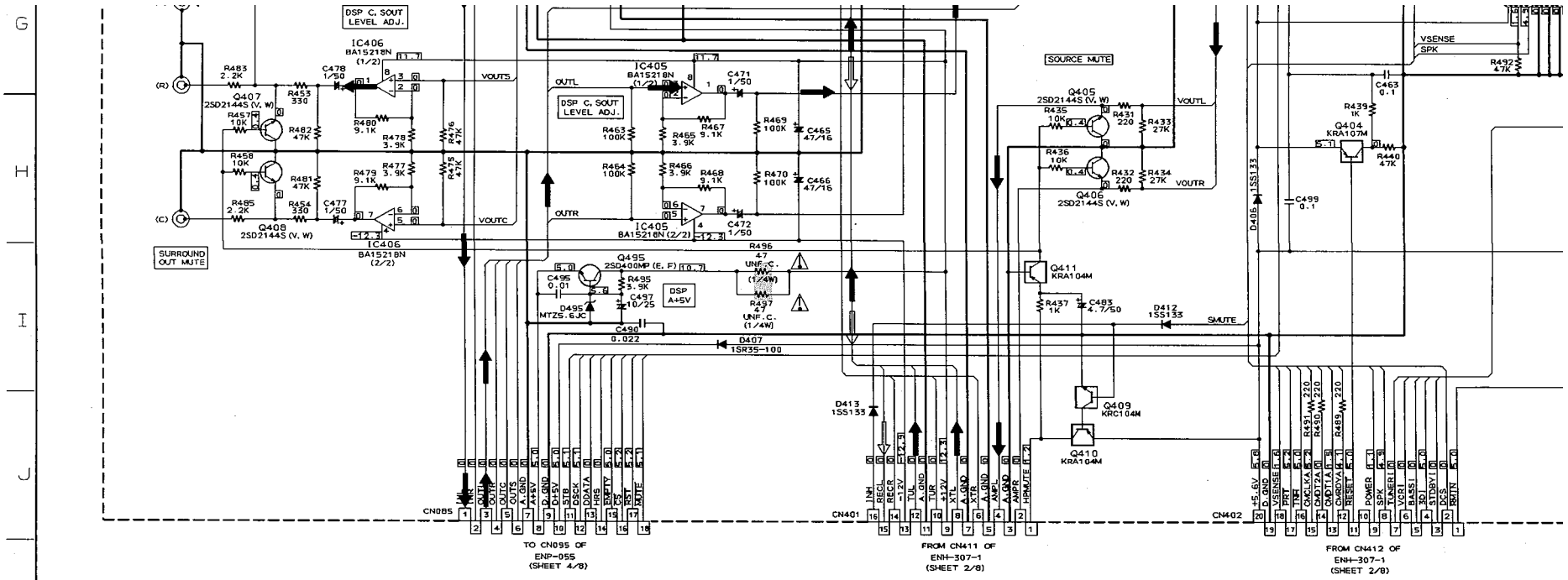
RF101
EAF2207-001



P3-31-a P3-31-b

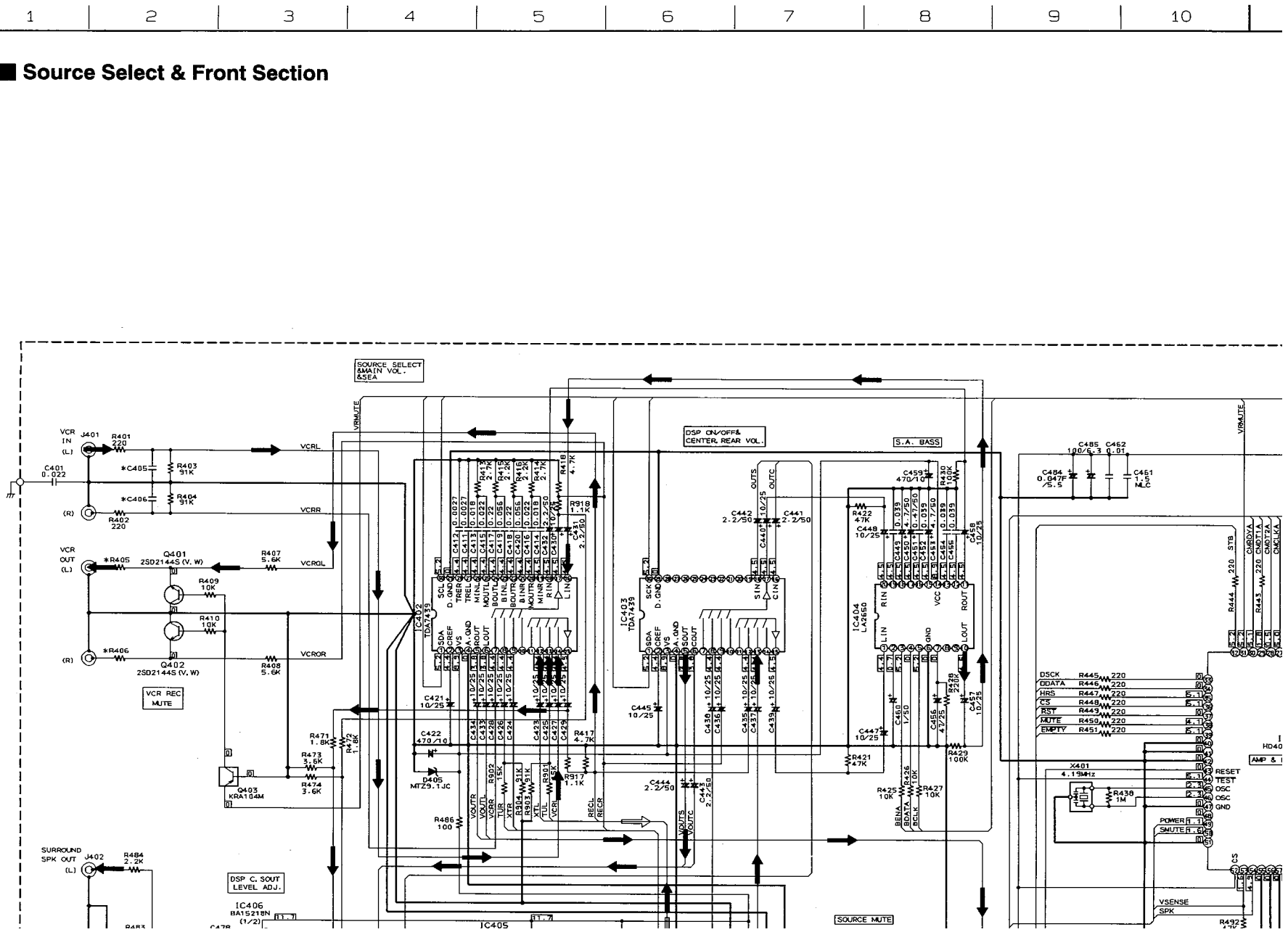


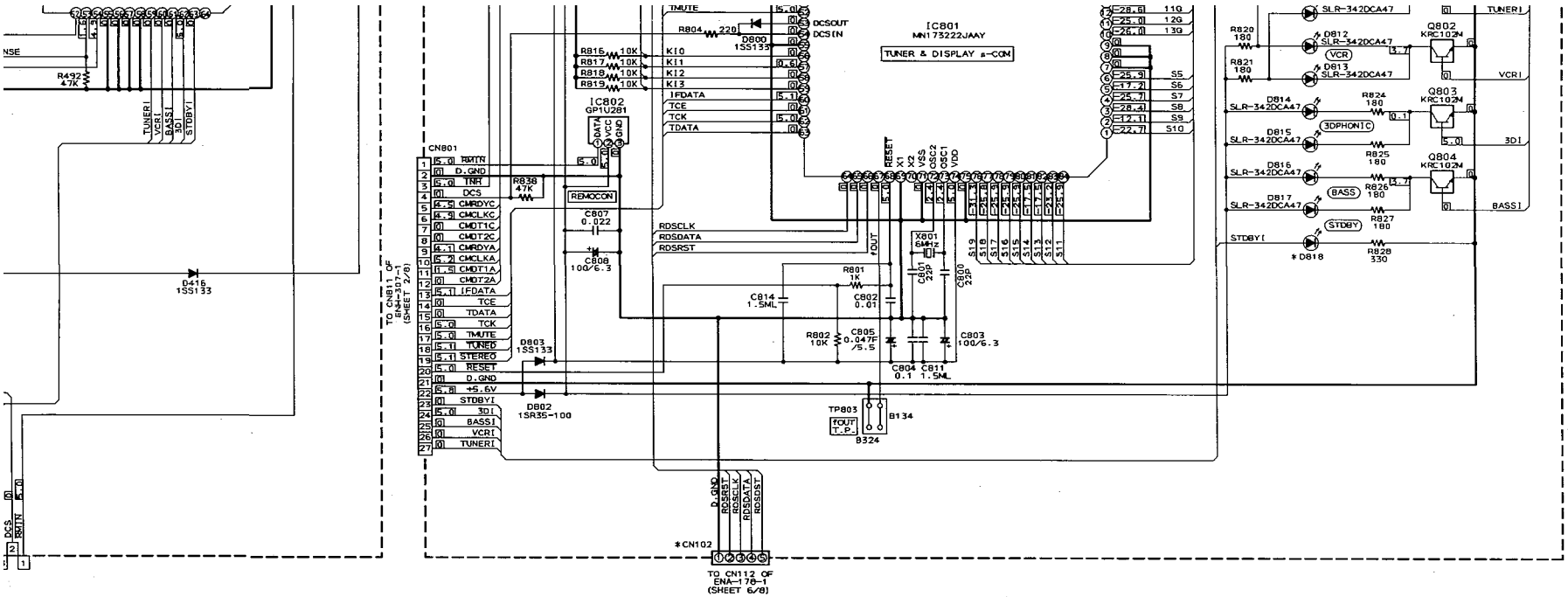
P3-31-c P3-31-d


DSP C, SOUT LEVEL ADJ.
IC406 BA15218N (1/2)
IC405 BA15218N (1/2)
SOURCE MUTE
SURROUND OUT MUTE
IC406 BA15218N (2/2)
IC405 BA15218N (2/2)
Q407 2SD2144S (V, W)
Q408 2SD2144S (V, W)
Q405 2SD2144S (V, W)
Q406 2SD2144S (V, W)
Q404 KRA107M
Q411 KRA104M
Q409 KRC104M
Q410 KRA104M
Q495 2SD400MP (E, F)
D495 MTZS6.2JC
D407 1SR35-100
D412 1SS133
D413 1SS133
D405 1SS133
DSP A+5V
SMUTE
VOUTS
VOUTC
VOUTL
VOUTR
OUTL
OUTR
VSENSE
SPK
CN085
CN401
CN402
TO CN095 OF ENP-055 (SHEET 4/8)
FROM CN411 OF ENH-307-1 (SHEET 2/8)
FROM CN412 OF ENH-307-1 (SHEET 2/8)

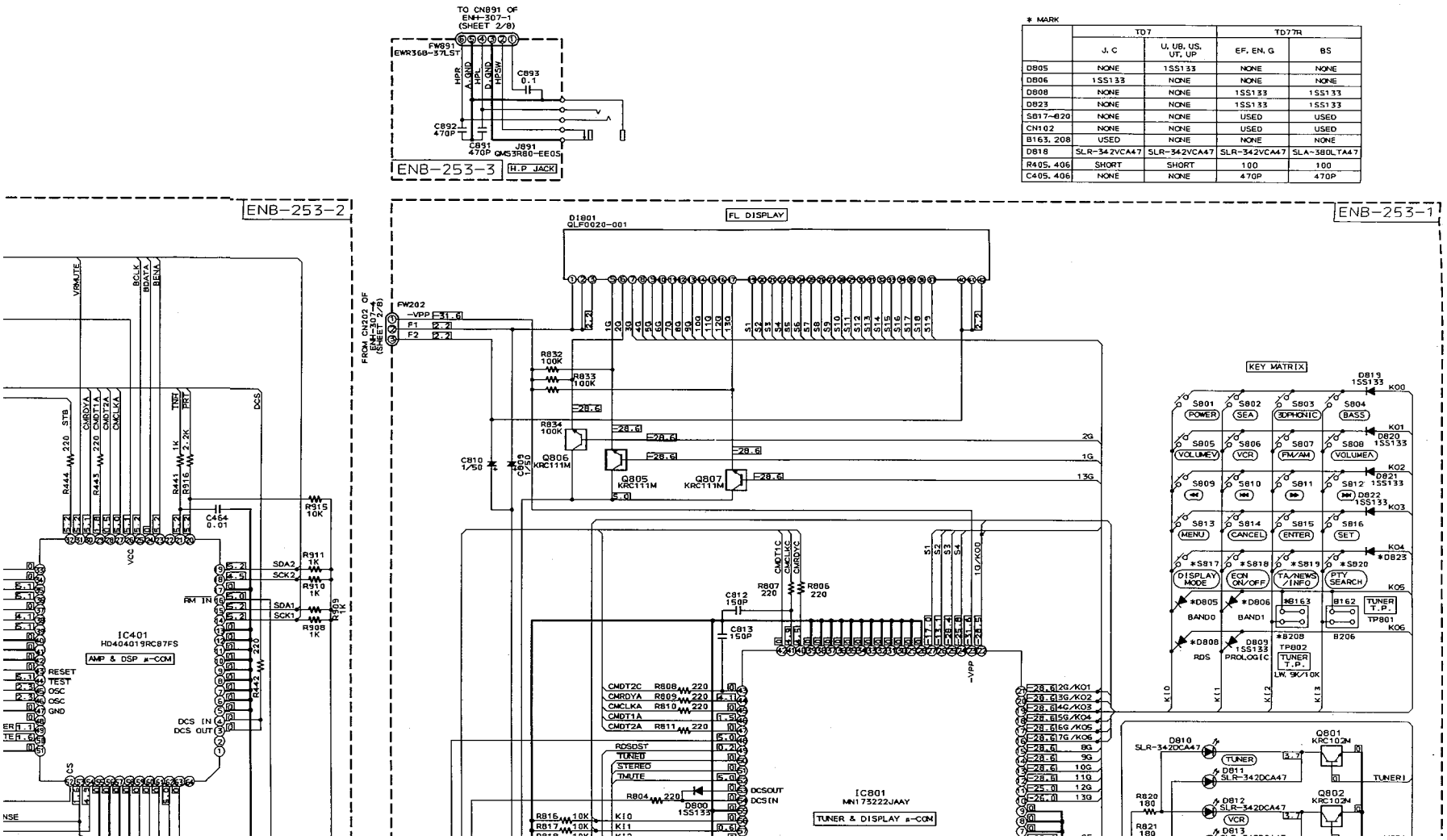
P3-31-a

■ Source Select & Front Section




IC801
MN173222JAAY
TUNER & DISPLAY μ-COM
IC802
GP1U281
CN801
RMTN
D.GND
TNR
DCS
CMRDYC
CMCLKC
CMDT1C
CMDT2C
CMRDYA
CMCLKA
CMDT1A
CMDT2A
IFDATA
TCE
TDATA
TCK
TMUTE
TUNED
STEREO
RESET
D.GND
+5.6V
STDBYI
3DI
BASSI
VCRI
TUNERI
R838 47K
REMOCON
C807 0.022
C806 100/6.3
D803 1SS133
D802 1SR35-100
D416 1SS133
R804 220
D800 1SS133
DCSOUT
DCSIN
R815 10K
R817 10K
R818 10K
R819 10K
KI0
KI1
KI2
KI3
IFDATA
TCE
TCK
TDATA
RDSCLK
RDSDATA
RDSRST
R801 1K
C802 0.01
C814 1.5ML
R802 10K
C805 0.047F /5.5
C804 0.1
C811 1.5ML
C803 100/6.3
C801 22P
C800 22P
X801 6MHz
TP803 #OUT T.P.
B134
B324
*CN102
TO CN112 OF ENA-178-1 (SHEET 6/8)
TO CN811 OF ENA-178-1 (SHEET 2/8)
SLR-342DCA47
D812
D813
D814
D815
D816
D817
*D818
VCR
3DPHONIC
BASS
STDBY
R820 180
R821 180
R824 180
R825 180
R826 180
R827 180
R828 330
Q802 KRC102M
Q803 KRC102M
Q804 KRC102M
TUNERI
VCRI
3DI
BASSI
STDBYI

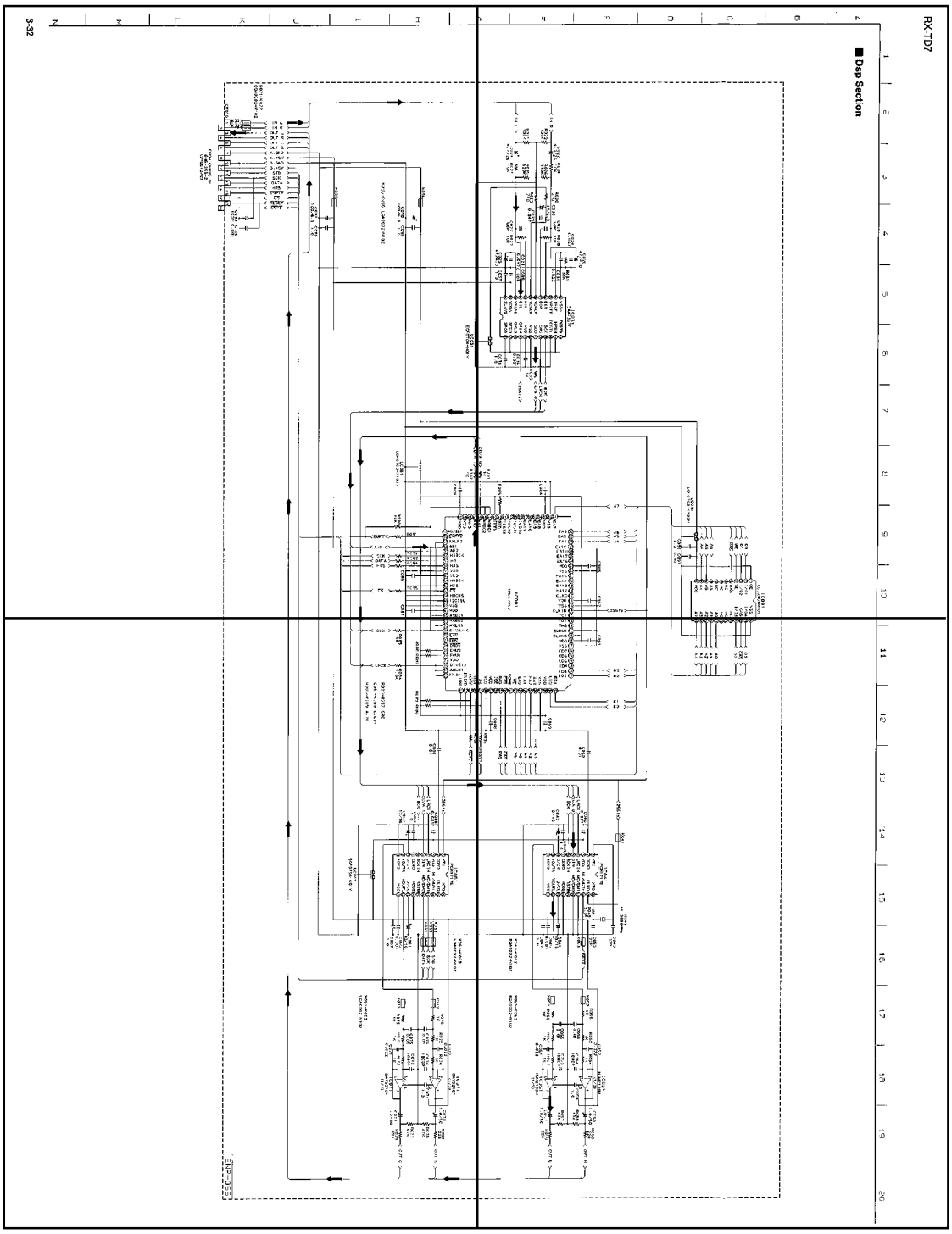
10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20



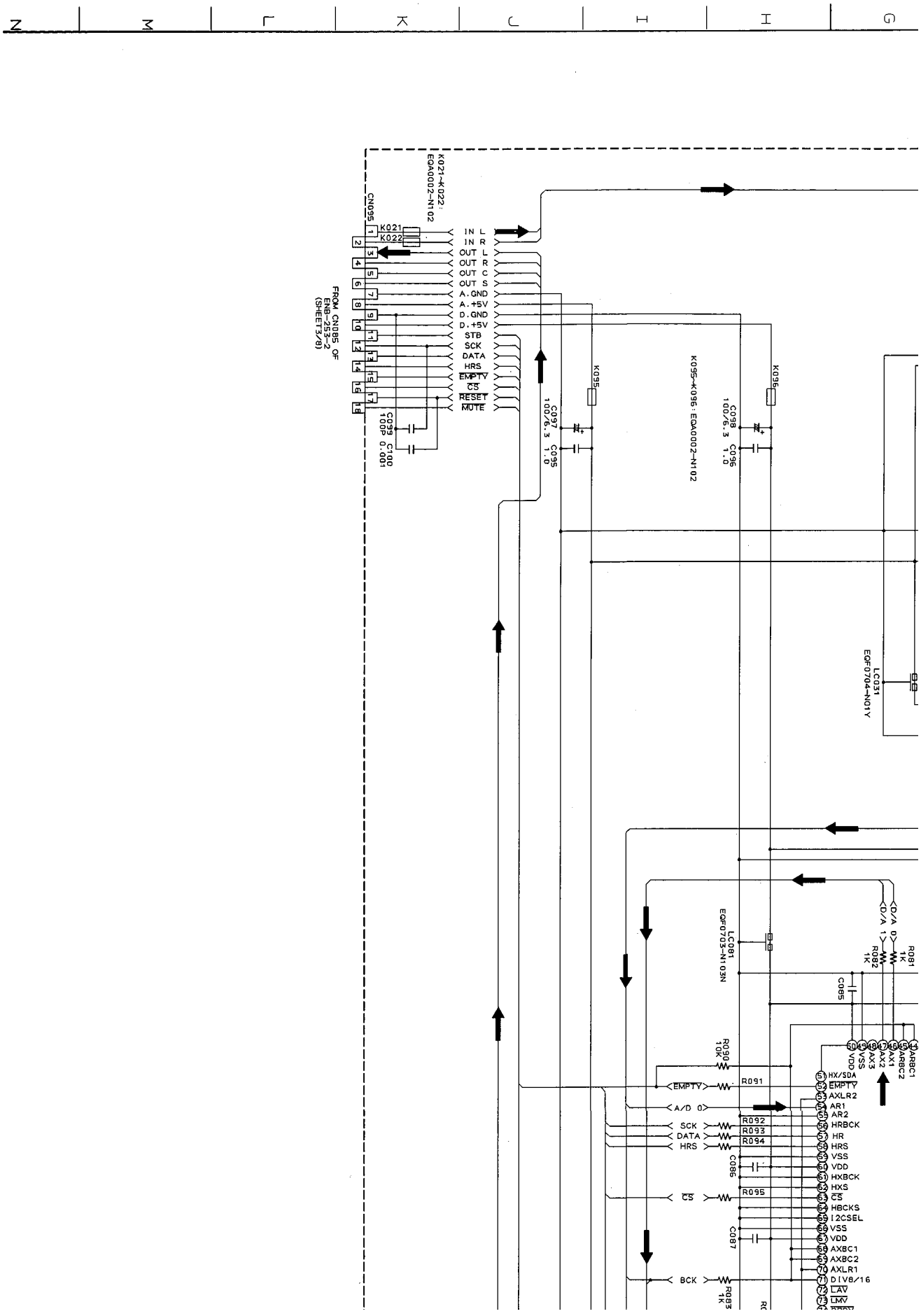
* MARK

	TD7		TD7R	
	J, C	U, UB, US, UT, UP	EF, EN, G	BS
D805	NONE	1SS133	NONE	NONE
D806	1SS133	NONE	NONE	NONE
D808	NONE	NONE	1SS133	1SS133
D823	NONE	NONE	1SS133	1SS133
S817~820	NONE	NONE	USED	USED
CN102	NONE	NONE	USED	USED
B163, 208	USED	NONE	NONE	NONE
D818	SLR-342VCA47	SLR-342VCA47	SLR-342VCA47	SLA-380LTA47
R405, 406	SHORT	SHORT	100	100
C405, 406	NONE	NONE	470P	470P

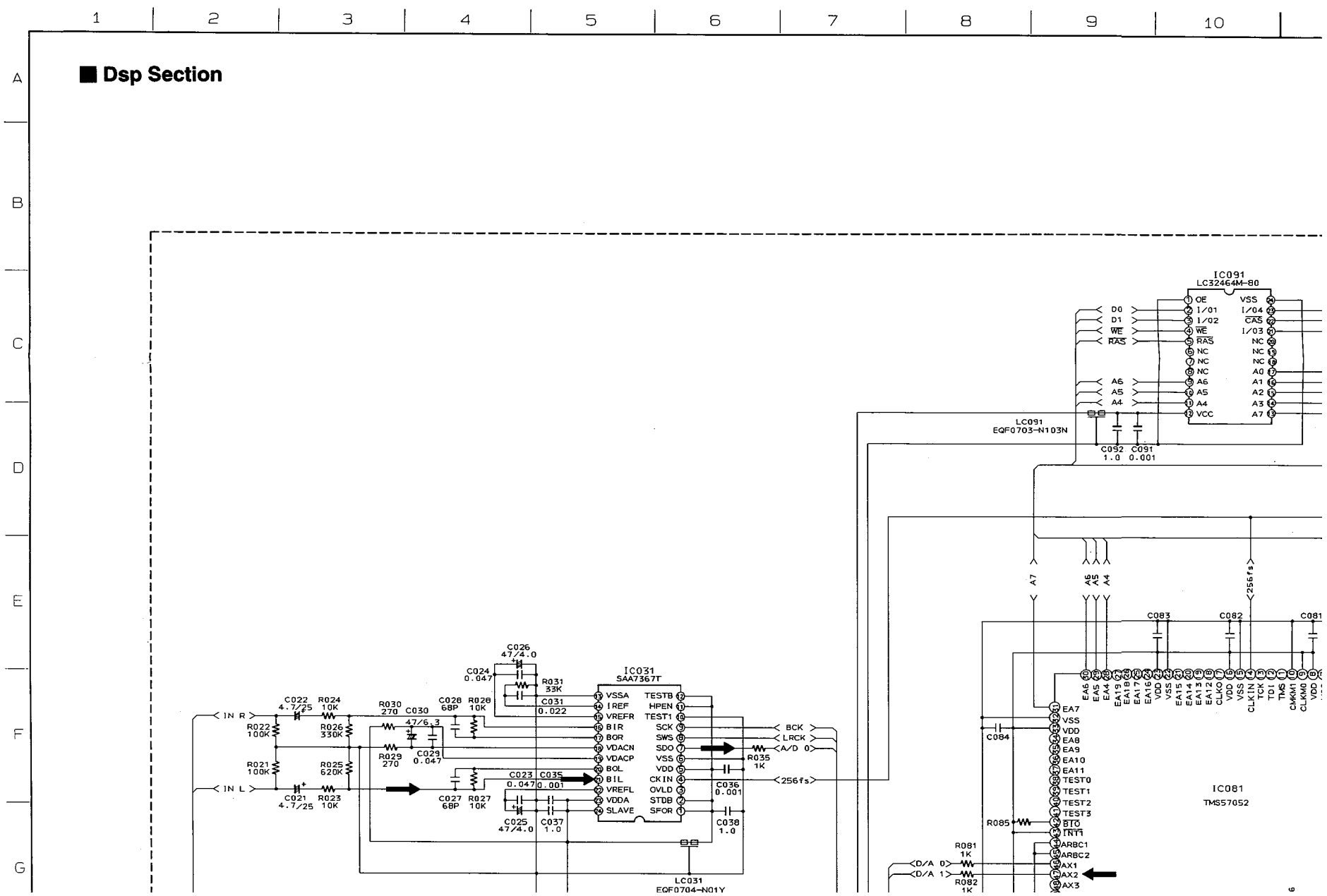
P3-32-a P3-32-b

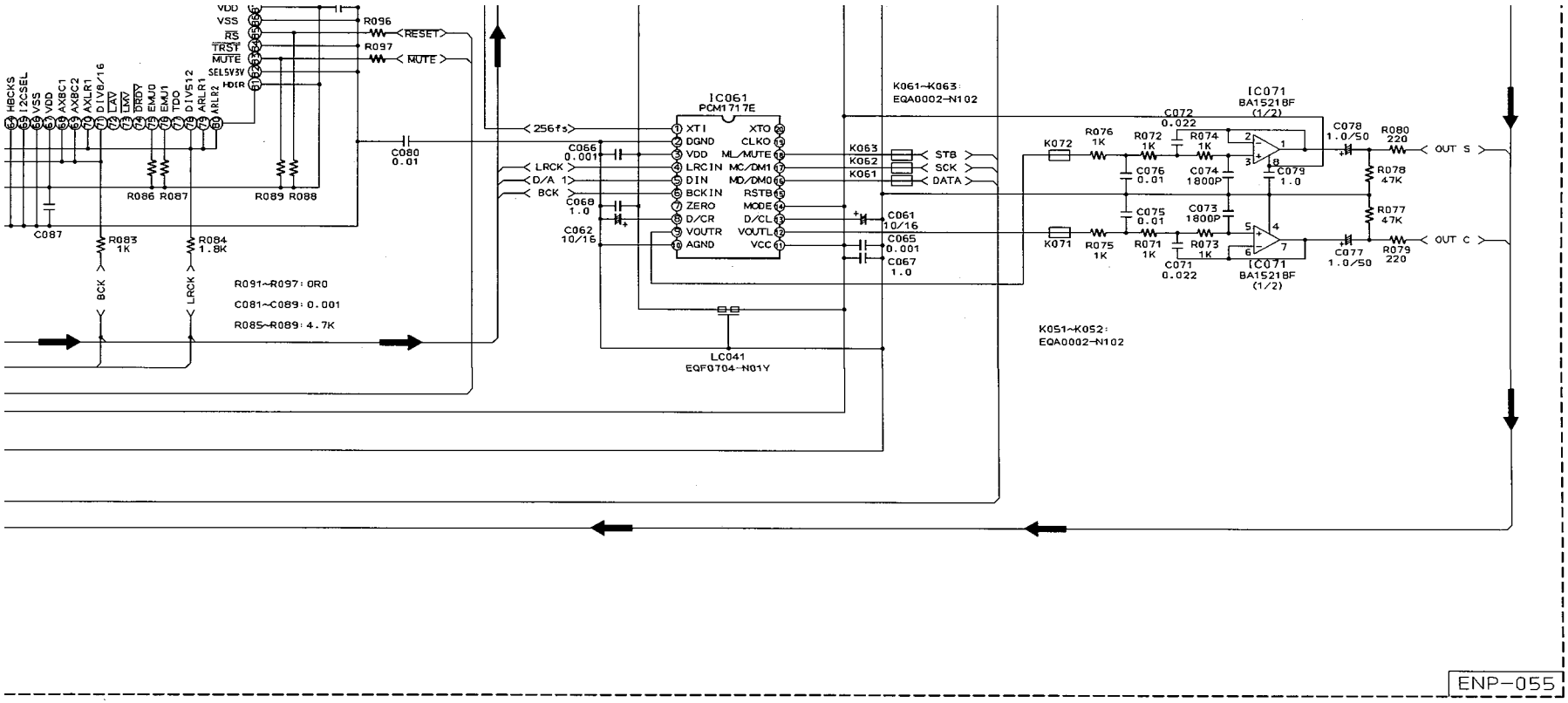


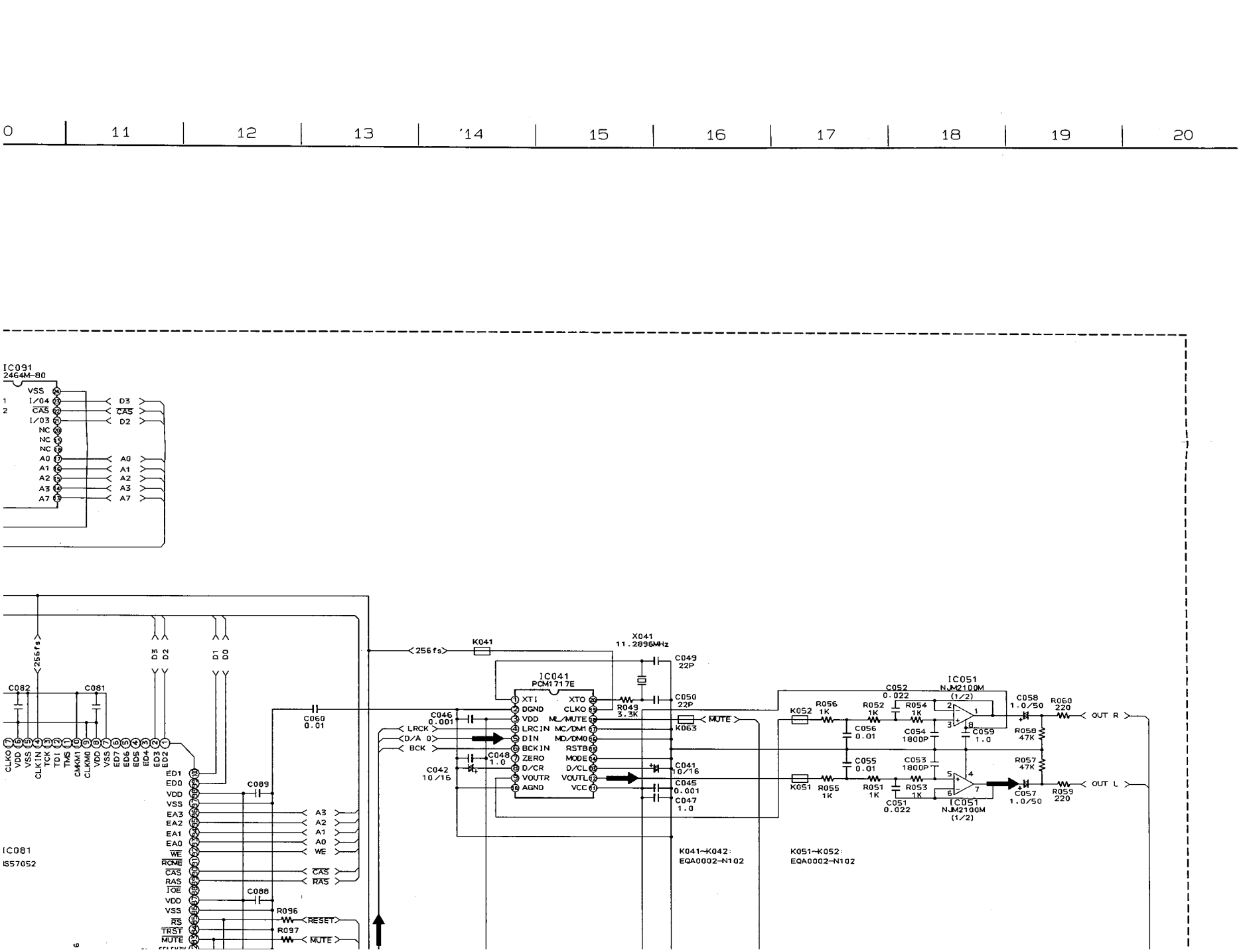
P3-32-c P3-32-d


N
M
L
K
J
H
G
CN095
K021
K022
K021~K022: EQA0002-N102
IN L
IN R
OUT L
OUT R
OUT C
OUT S
A.GND
A.+5V
D.GND
D.+5V
STB
SCK
DATA
HRS
EMPTY
CS
RESET
MUTE
FROM CN085 OF ENB-253-2 (SHEET3/8)
C099 100P
C100 0.001
C097 100/6.3
C095 1.0
K095
K096
K095~K096: EQA0002-N102
C098 100/6.3
C096 1.0
LC031 EQF0704-N01Y
LC091 EQF0703-N103N
D/A
R081 1K
R082 1K
C085
R090 10K
R091
EMPTY
A/D 0
SCK
DATA
HRS
R092
R093
R094
C086
R095
CS
C087
BCK
R083 1K
HX/SDA
EMPTY
AXLR2
AR1
AR2
HRBCK
HR
HRS
VSS
VDD
HXBCK
HXS
CS
HBCKS
I2CSEL
VSS
VDD
AXBC1
AXBC2
AXLR1
DIV8/16
LAV
LMV
AXBC1
AXBC2
AXLR1
AXBCK
AXS
AXDT
VSS
VDD

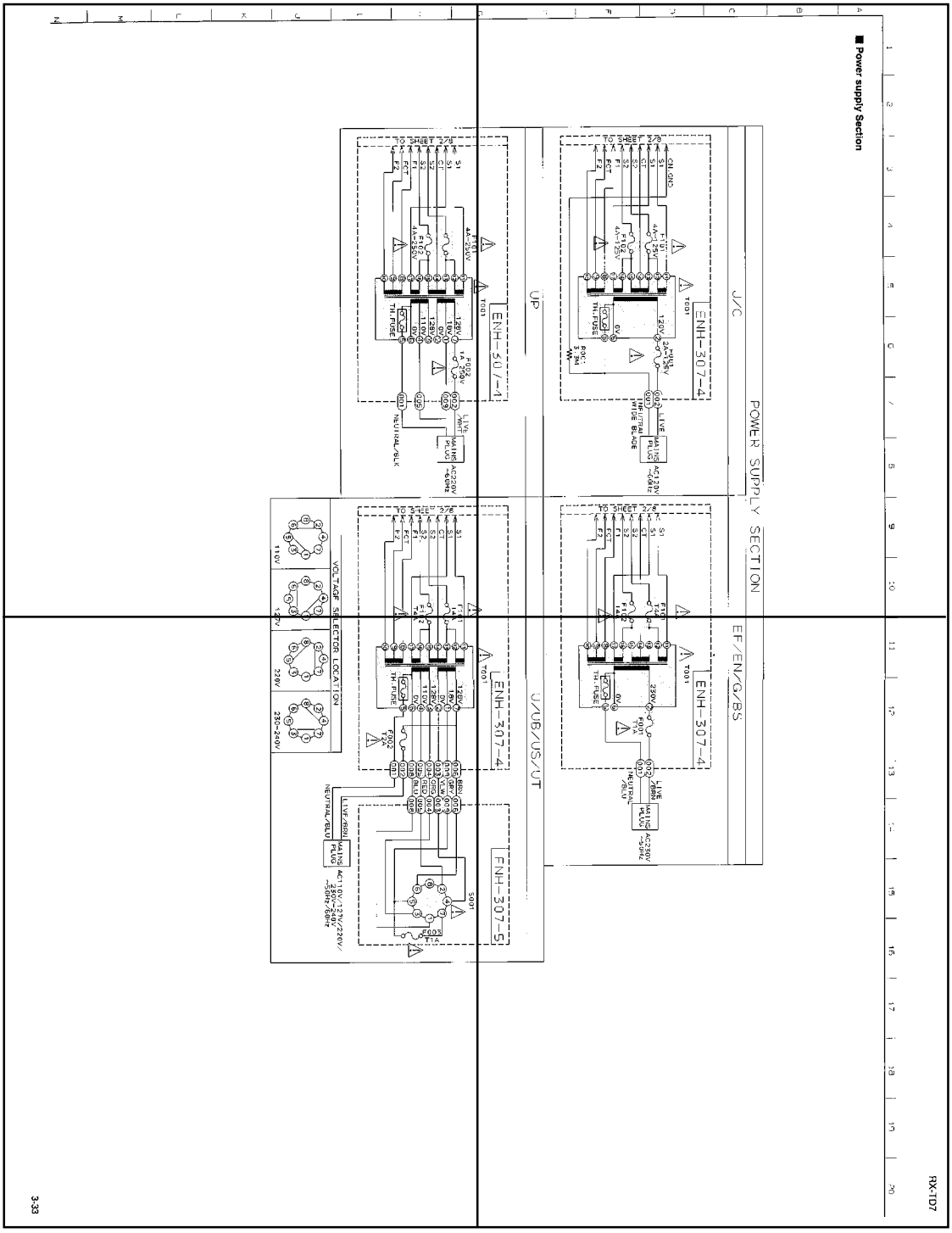
■ Dsp Section


IC091
LC32464M-80
LC091
EQF0703-N103N
IC031
SAA7367T
LC031
EQF0704-N01Y
IC081
TMS57052
IN R
IN L
BCK
LRCK
A/D 0
256fs
D/A 0
D/A 1

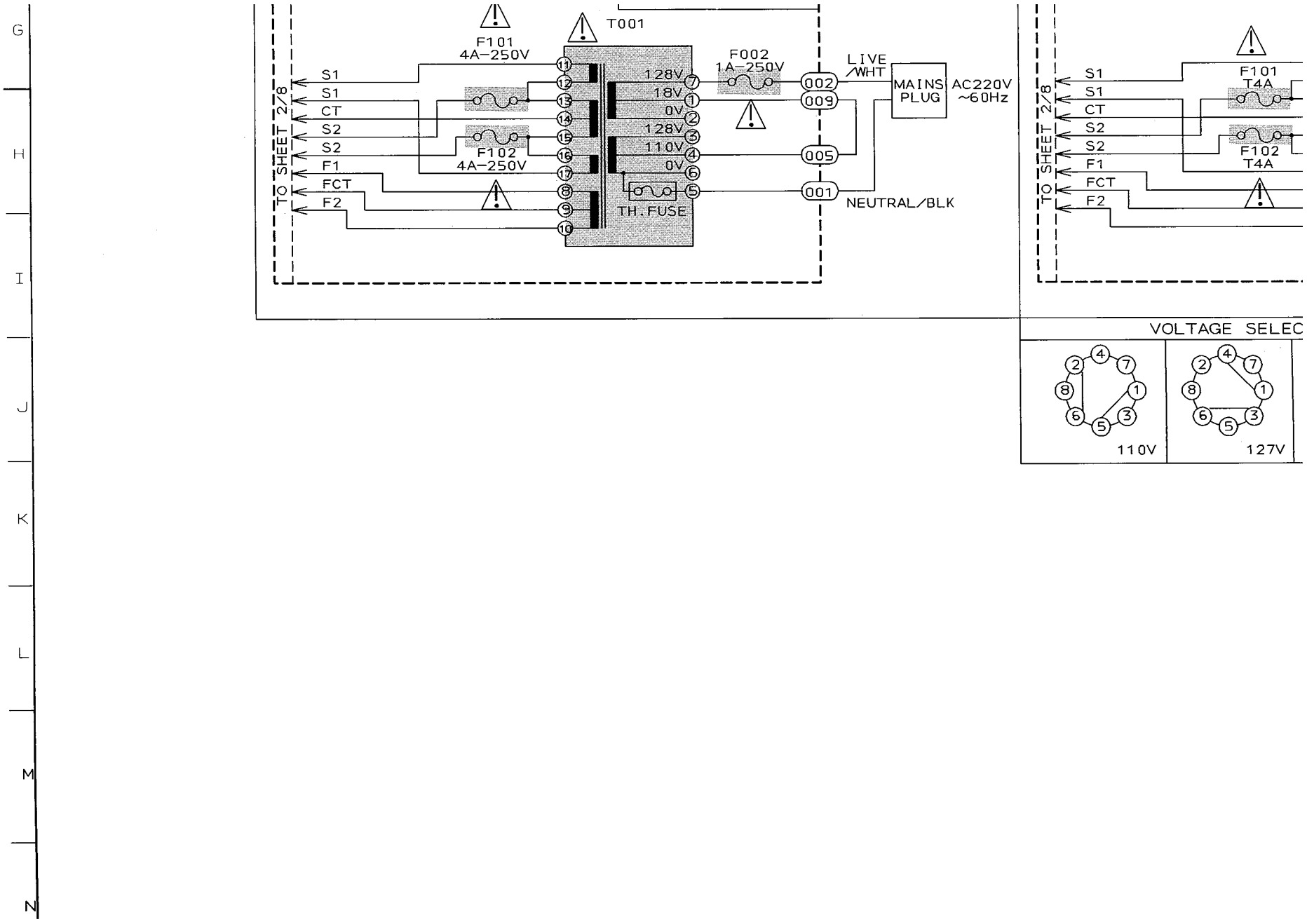

HBCKS
I2CSEL
VSS
VDD
AXBC1
AXBC2
AXLR1
DIV8/16
LRW
DRDY
EMU0
EMU1
TDO
DIVS12
ARLR1
ARLR2
VDD
VSS
TRST
MUTE
SEL5V3V
HDIR
R096
RESET
R097
MUTE
C080
0.01
R086 R087
R089 R088
C087
R083
1K
R084
1.8K
BCK
LRCK
R091~R097: 0R0
C081~C089: 0.001
R085~R089: 4.7K
256fs
LRCK
D/A
BCK
IC061
PCM1717E
XTI
DGND
VDD
LRCIN
DIN
BCKIN
ZERO
D/CR
VOUTR
AGND
XTO
CLKO
ML/MUTE
MC/DM1
MD/DM0
RSTB
MODE
D/CL
VOUTL
VCC
C066
0.001
C068
1.0
C062
10/16
LC041
EQF0704-N01Y
K061~K063:
EQA0002-N102
K063
K062
K061
STB
SCK
DATA
C061
10/16
C065
0.001
C067
1.0
K051~K052:
EQA0002-N102
IC071
BA15218F
(1/2)
K072
K071
R076
1K
R072
1K
R074
1K
C072
0.022
C076
0.01
C074
1800P
C079
1.0
C078
1.0/50
R080
220
R078
47K
OUT S
C075
0.01
C073
1800P
R075
1K
R071
1K
R073
1K
C071
0.022
C077
1.0/50
R079
220
R077
47K
OUT C
ENP-055


0
11
12
13
14
15
16
17
18
19
20
IC091
2464M-80
IC081
IS57052
IC041
PCM1717E
X041
11.2896MHz
IC051
NJM2100M
(1/2)
K041~K042:
EQA0002-N102
K051~K052:
EQA0002-N102
256fs
LRCK
D/A
BCK
MUTE
OUT R
OUT L
RESET

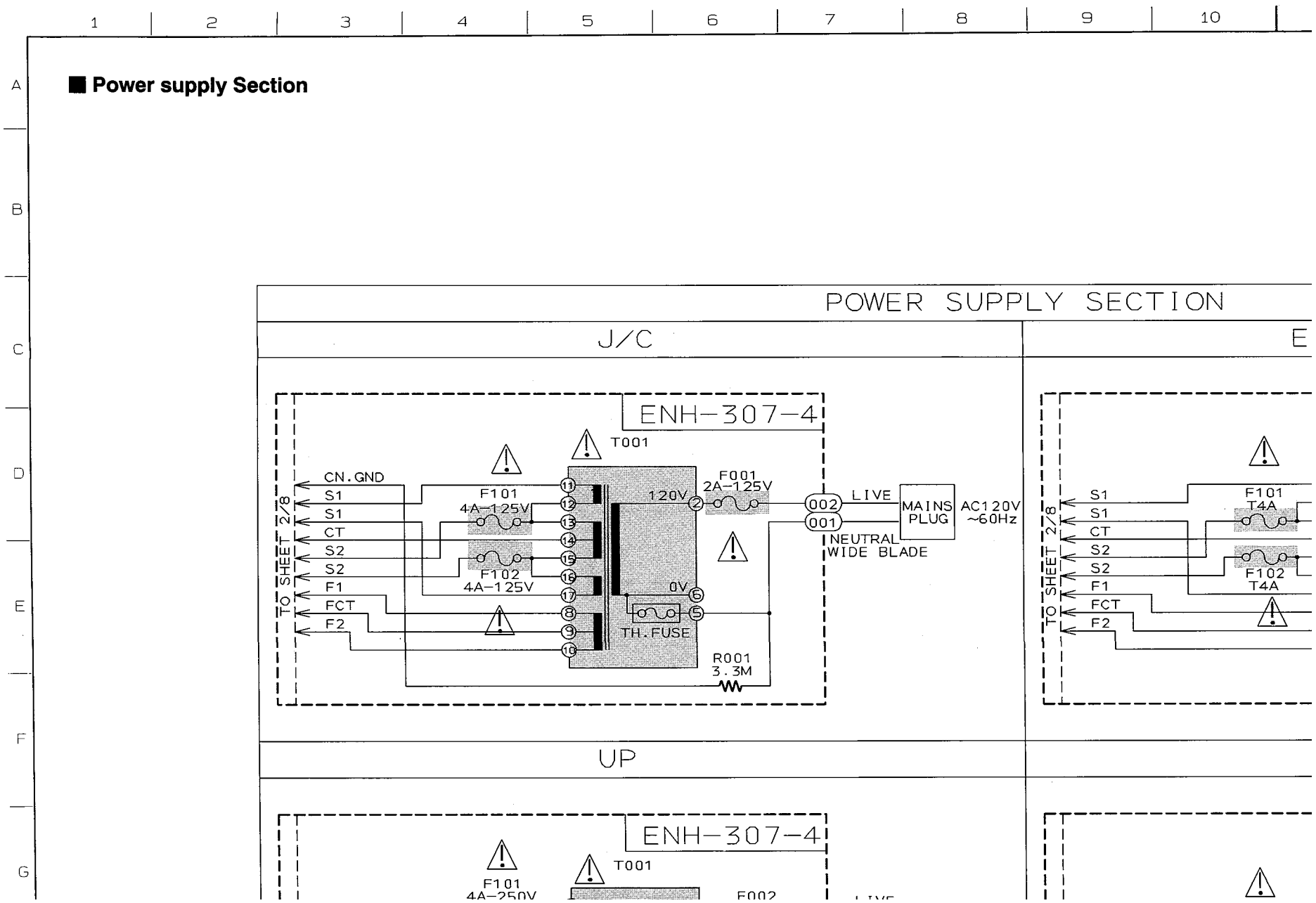
P3-33-a P3-33-b

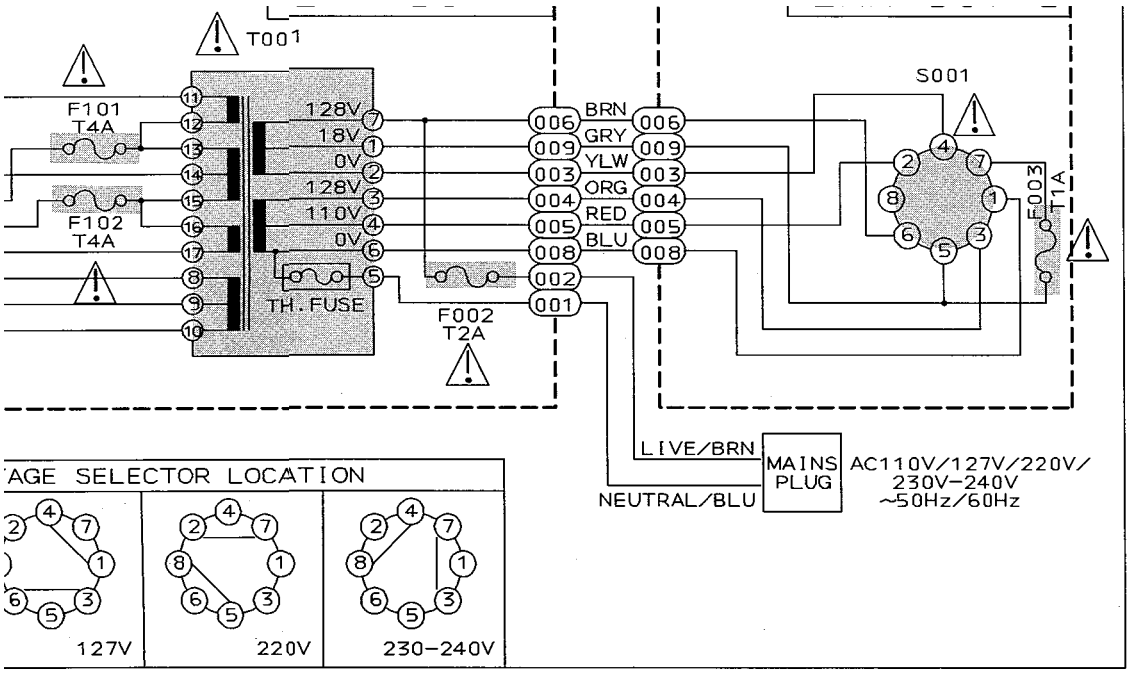


P3-33-c P3-33-d

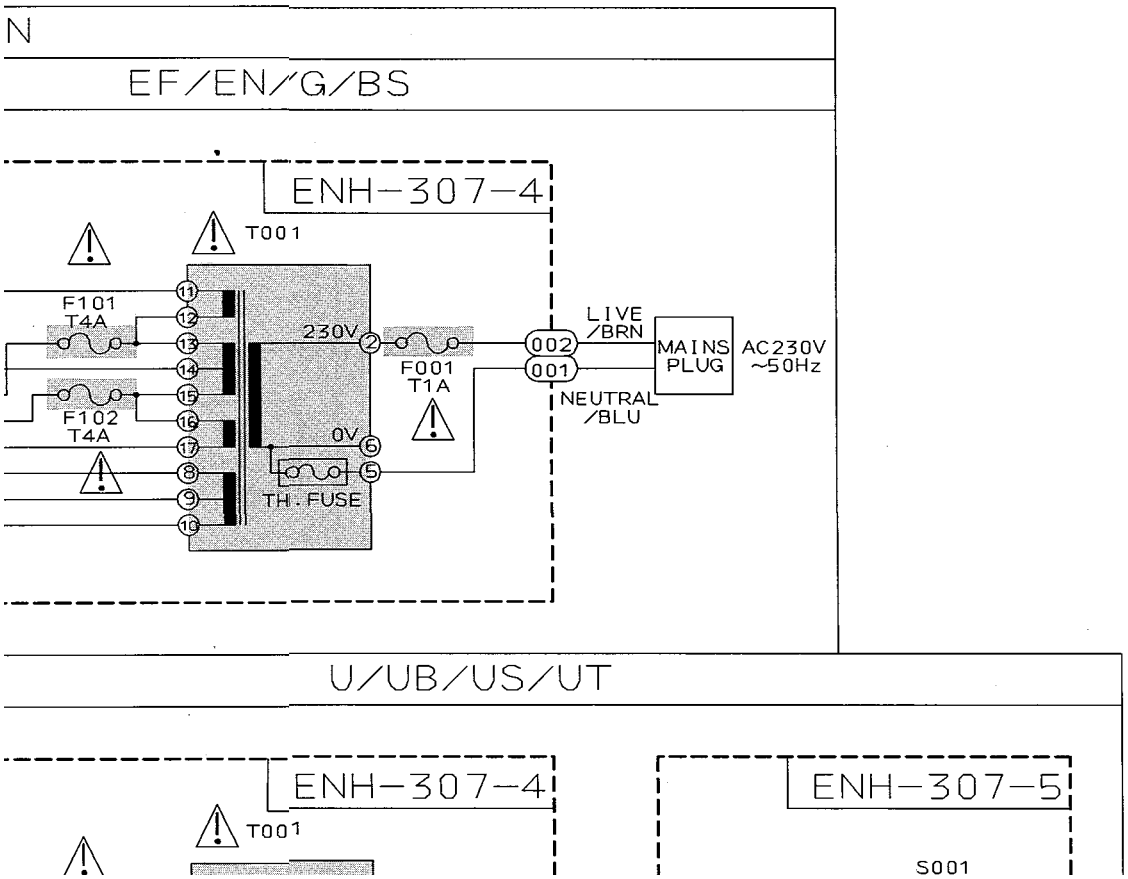

F101
4A–250V
T001
F002
1A–250V
LIVE
/WHT
MAINS
PLUG
AC220V
~60Hz
S1
S1
CT
S2
S2
F1
FCT
F2
TO SHEET 2/8
128V
18V
0V
128V
110V
0V
TH.FUSE
F102
4A–250V
002
009
005
001
NEUTRAL/BLK
F101
T4A
F102
T4A
VOLTAGE SELEC
110V
127V

■ Power supply Section

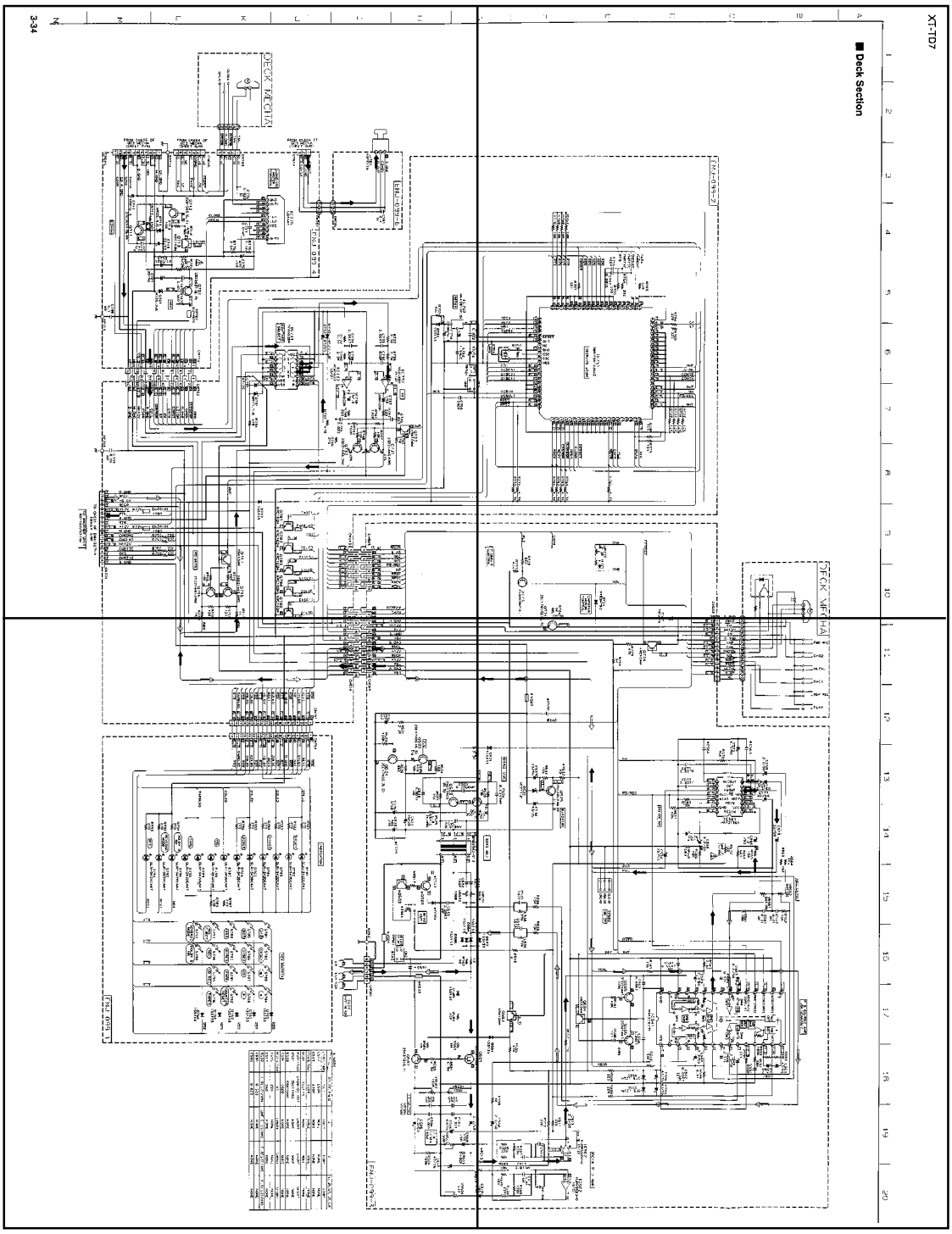



T001
F101
T4A
F102
T4A
128V
18V
0V
128V
110V
0V
TH. FUSE
F002
T2A
006 BRN 006
009 GRY 009
003 YLW 003
004 ORG 004
005 RED 005
008 BLU 008
002
001
S001
F003
T1A
LIVE/BRN
NEUTRAL/BLU
MAINS PLUG
AC110V/127V/220V/
230V-240V
~50Hz/60Hz
AGE SELECTOR LOCATION
127V
220V
230-240V

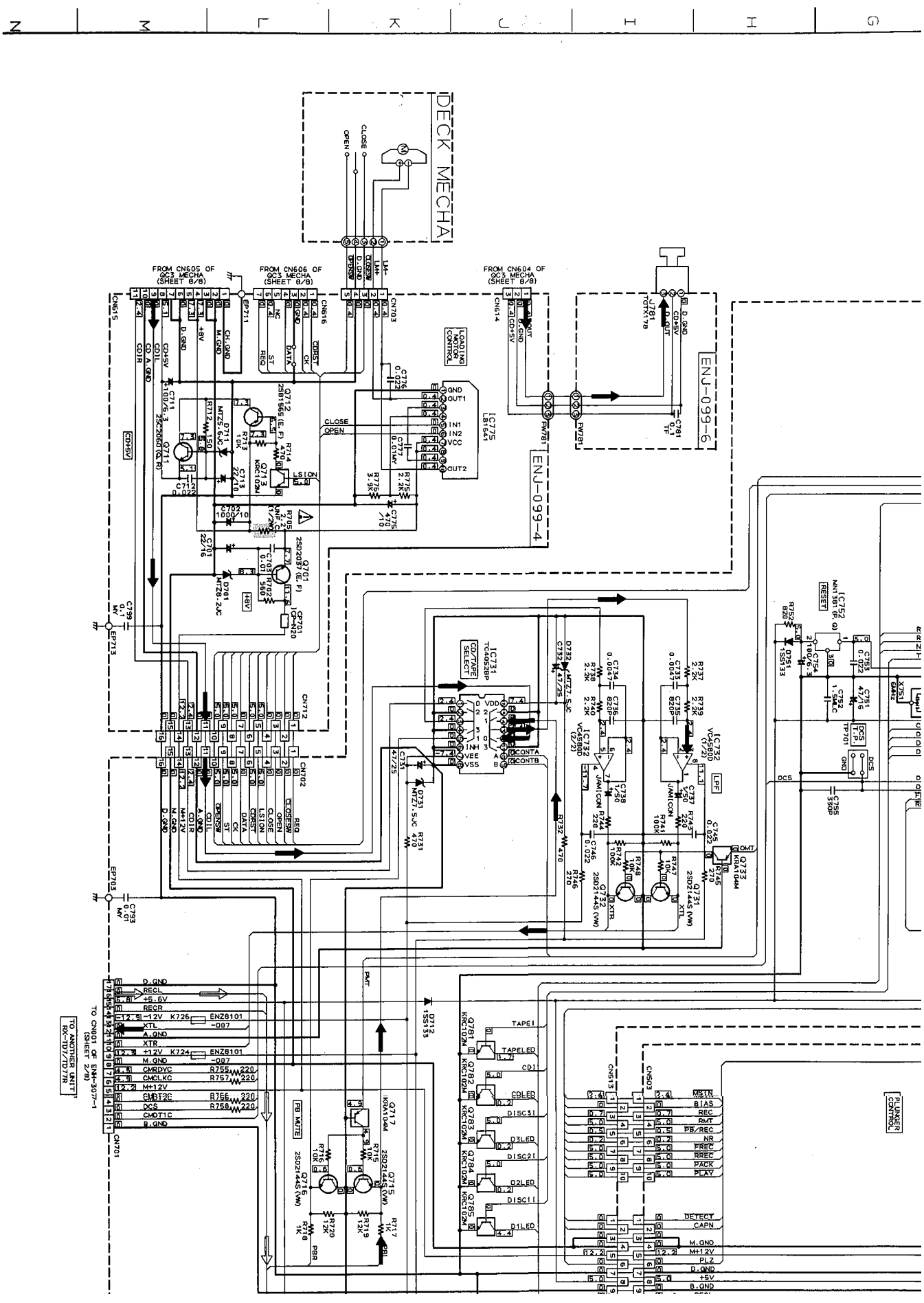
10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20



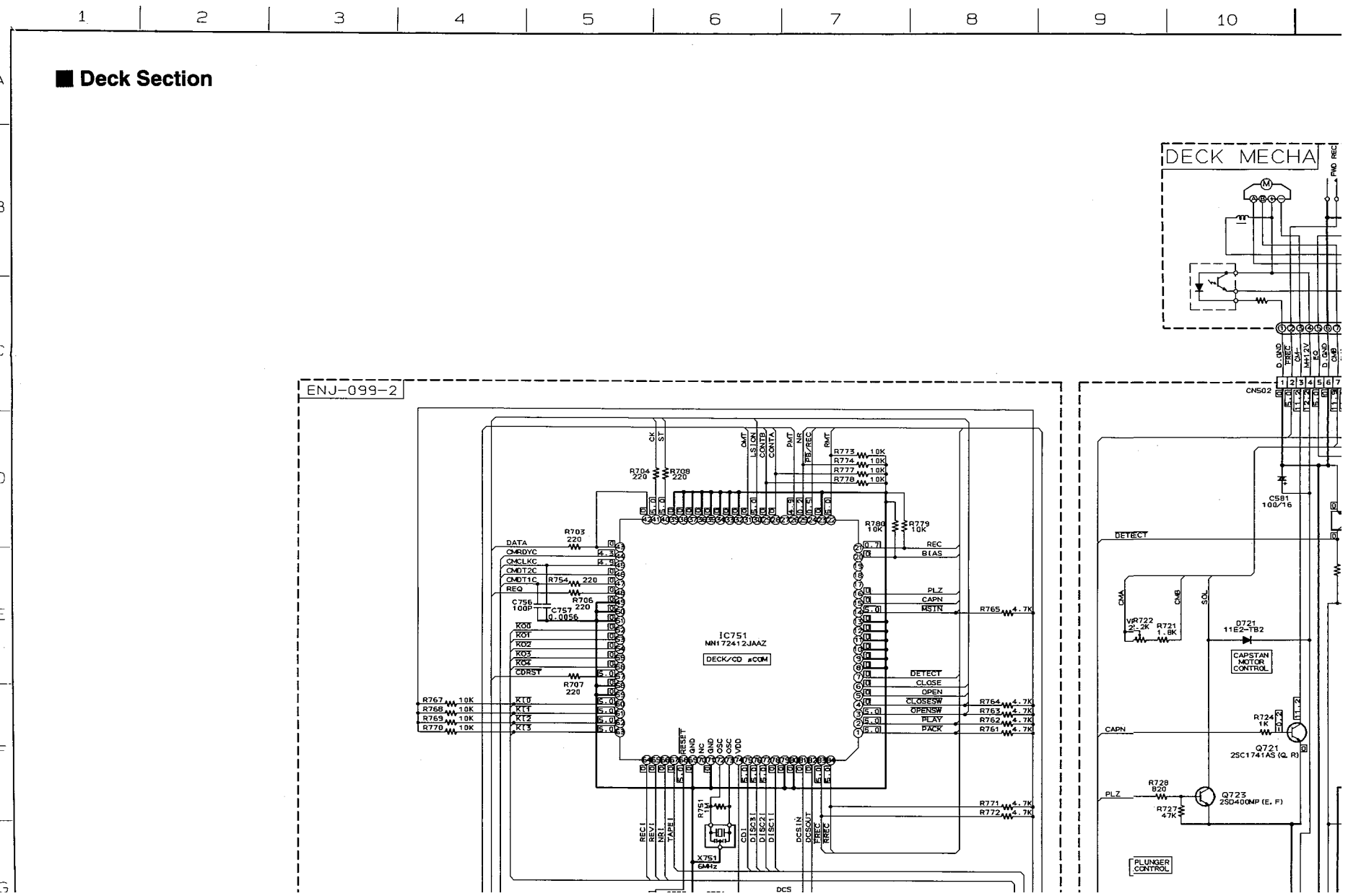
P3-34-a P3-34-b

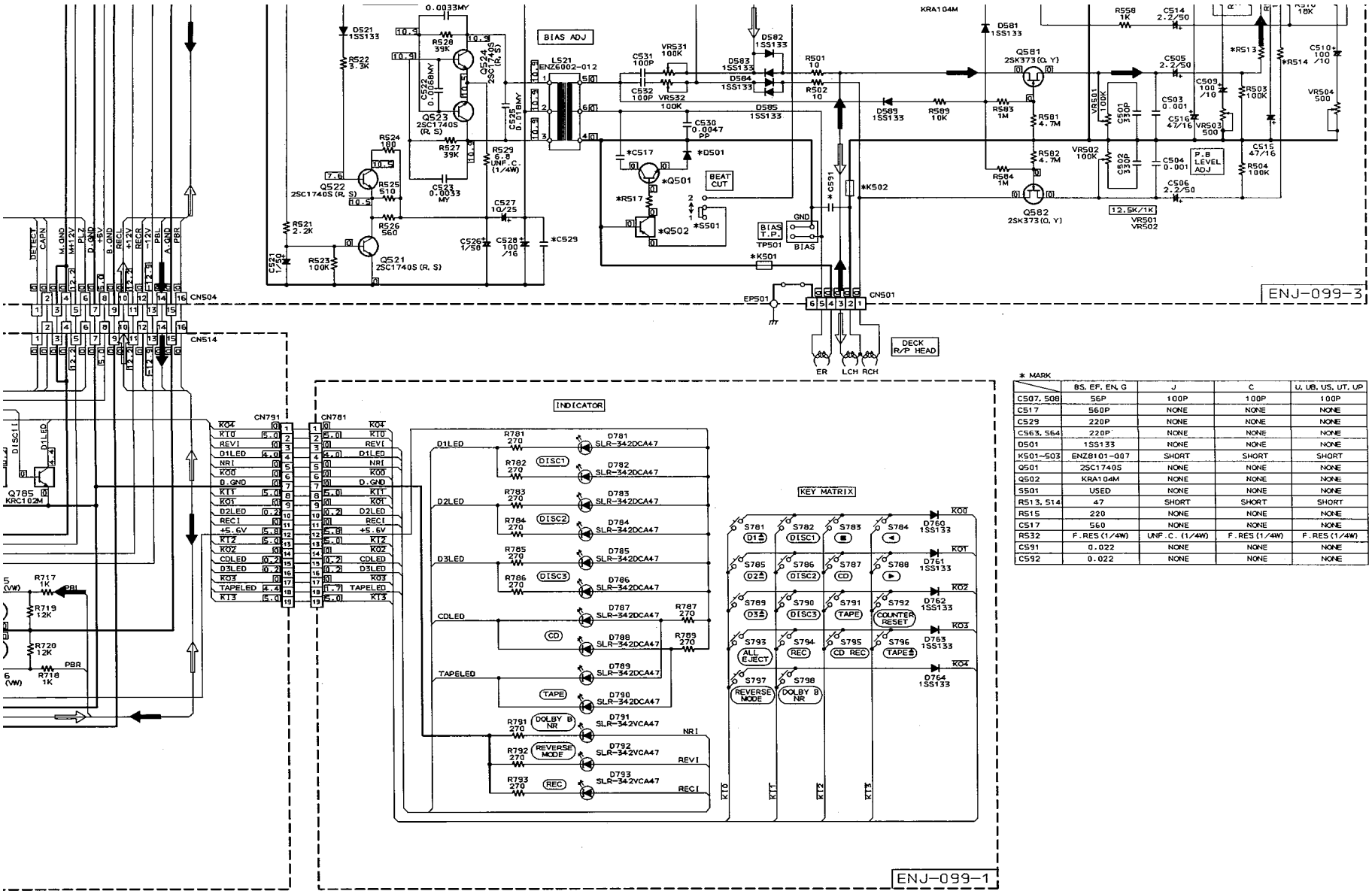


P3-34-c P3-34-d


DECK MECHA
ENJ-099-6
ENJ-099-4
FROM CN605 OF QC3 MECHA (SHEET 8/8)
FROM CN606 OF QC3 MECHA (SHEET 8/8)
FROM CN604 OF QC3 MECHA (SHEET 8/8)
CN615
CN616
CN703
CN614
J781
CN712
CN702
CN701
EP711
EP712
EP713
EP703
IC7731
TC4052BP
IC7732
VC4580D
IC7752
MN1381(E.G)
IC7751
IC7735
LB1641
Q7712
2SB1565
Q7711
Q7713
Q701
2SD2037
Q7701
CP701
Q7731
2SD2144S
Q7732
2SD2144S
Q7733
KRA104M
Q7715
2SD2144S
Q7716
2SD2144S
Q7717
KRA104M
Q781
KRC102M
Q782
KRC102M
Q783
KRC102M
Q784
KRC102M
Q785
KRC102M
D712
1SS133
D731
MTZ7.5JC
D732
MTZ7.5JC
D711
MTZ5.6JC
D701
MTZ8.2JC
X7751
6MHz
TP7101
LOADING CONTROL
PLUNGER CONTROL
PB MUTE
PBR
PBL
LPF
OMT
RESET
CD/TAPE SELECT
TO CN001 OF ENJ-3077-1 (SHEET 2/8)
TO ANOTHER UNIT RX-TD7/TD77R
D.GND
RECL
+5.6V
RECR
-12V
XTL
A.GND
XTR
+12V
M.GND
CMRDYC
CMCLKC
M+12V
CMDT2C
DCS
CMDT1C
B.GND
ENZ8101 -007
K726
K724
R755 220
R757 220
R756 220
R758 220
TAPEI
TAPELED
CDI
CDLED
DISC3I
D3LED
DISC2I
D2LED
DISC1I
D1LED
MSTN
BIAS
REC
RMT
PB/REC
NR
FREC
RREC
PACK
PLAY
DETECT
CAPN
M.GND
M+12V
PLZ
D.GND
+5V
B.GND
CD+5V
+8V
CDMUTE
CLOSE
OPEN
CDCONTA
CDCONTB
PMT

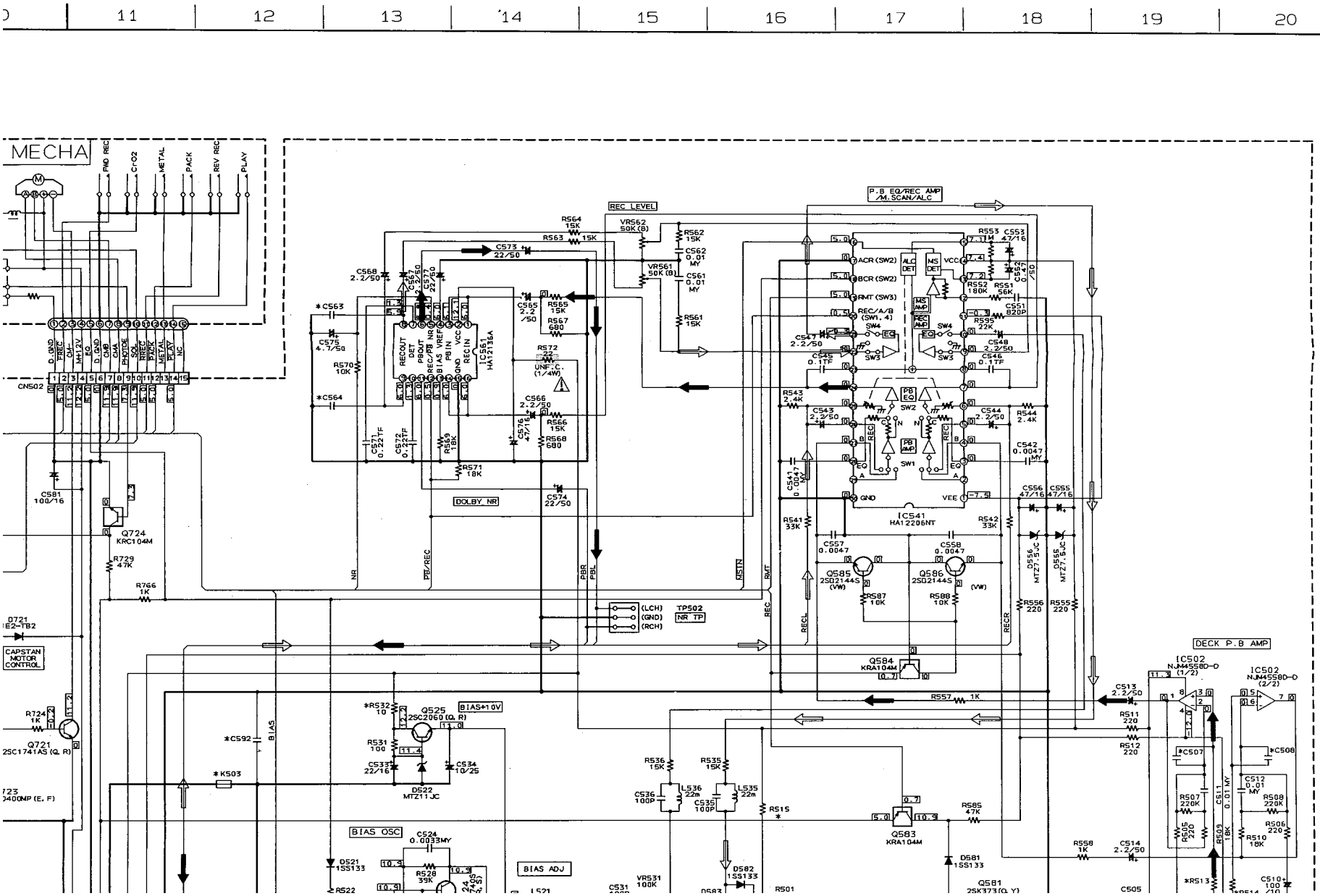
■ Deck Section



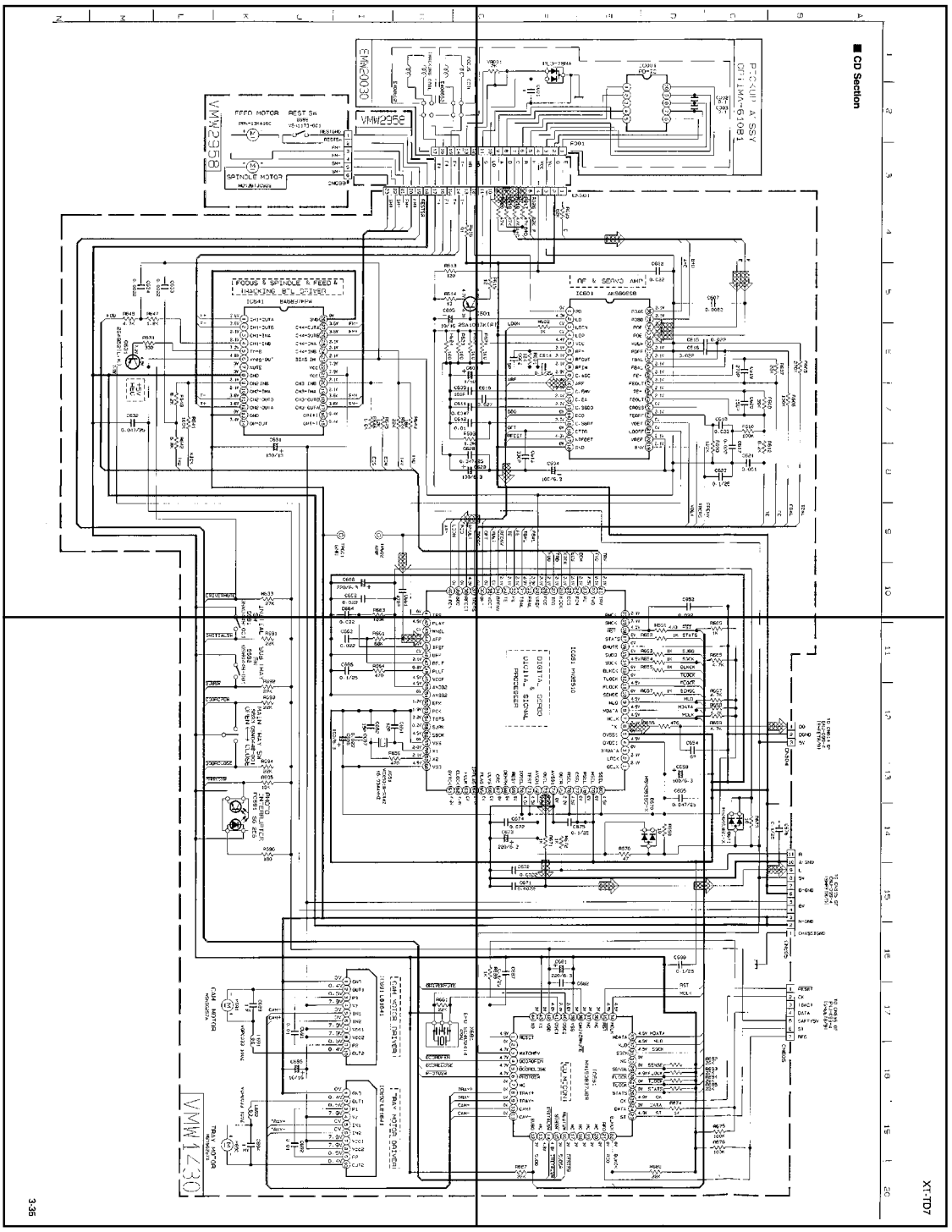


* MARK

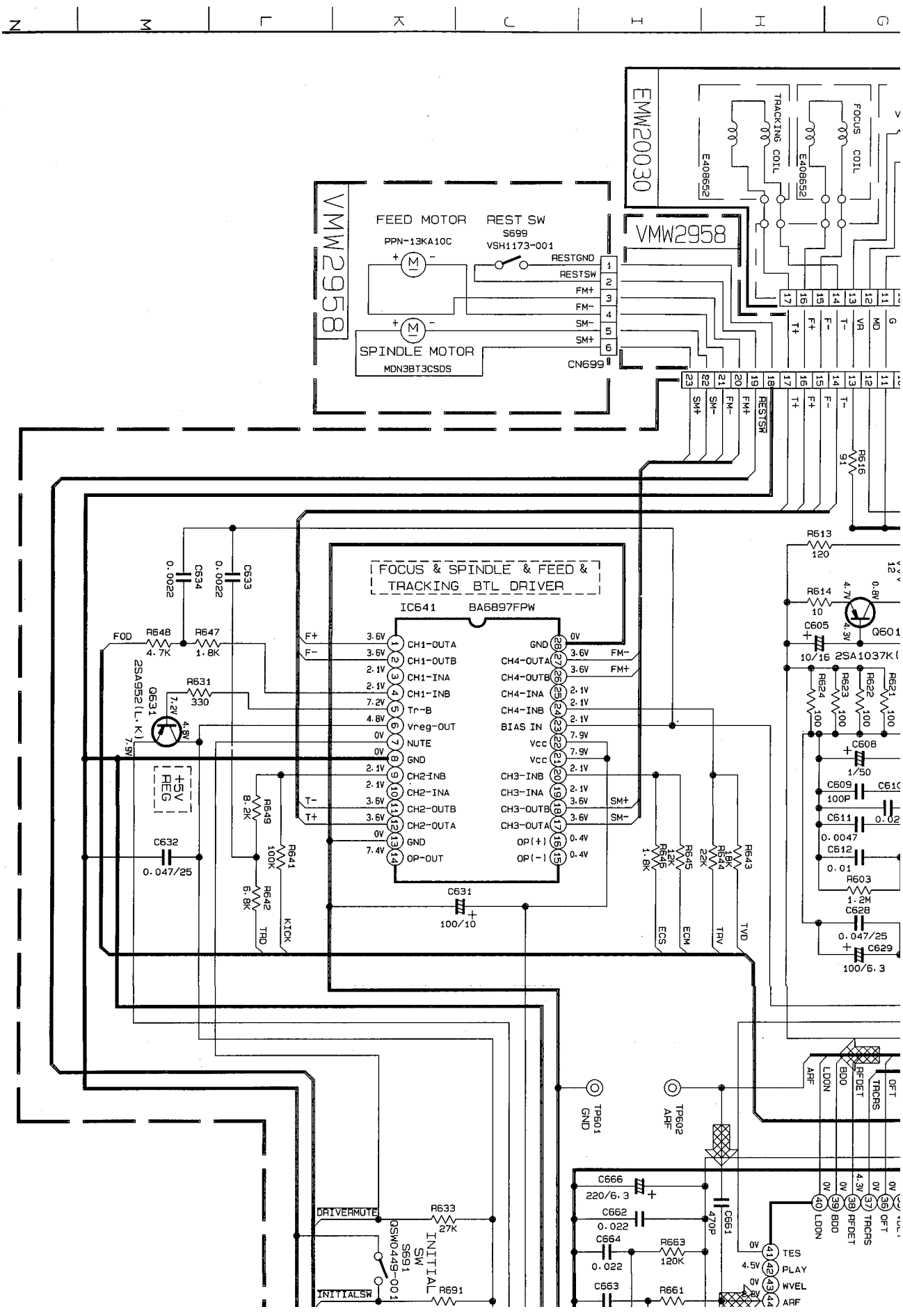
	BS, EF, EN, G	J	C	U, UB, US, UT, UP
C507, 508	56P	100P	100P	100P
C517	560P	NONE	NONE	NONE
C529	220P	NONE	NONE	NONE
C563, 564	220P	NONE	NONE	NONE
D501	1SS133	NONE	NONE	NONE
K501~503	ENZ8101-007	SHORT	SHORT	SHORT
Q501	2SC1740S	NONE	NONE	NONE
Q502	KRA104M	NONE	NONE	NONE
S501	USED	NONE	NONE	NONE
RS13, 514	47	SHORT	SHORT	SHORT
R515	220	NONE	NONE	NONE
C517	560	NONE	NONE	NONE
R532	F.RES (1/4W)	UNF.C. (1/4W)	F.RES (1/4W)	F.RES (1/4W)
C591	0.022	NONE	NONE	NONE
C592	0.022	NONE	NONE	NONE

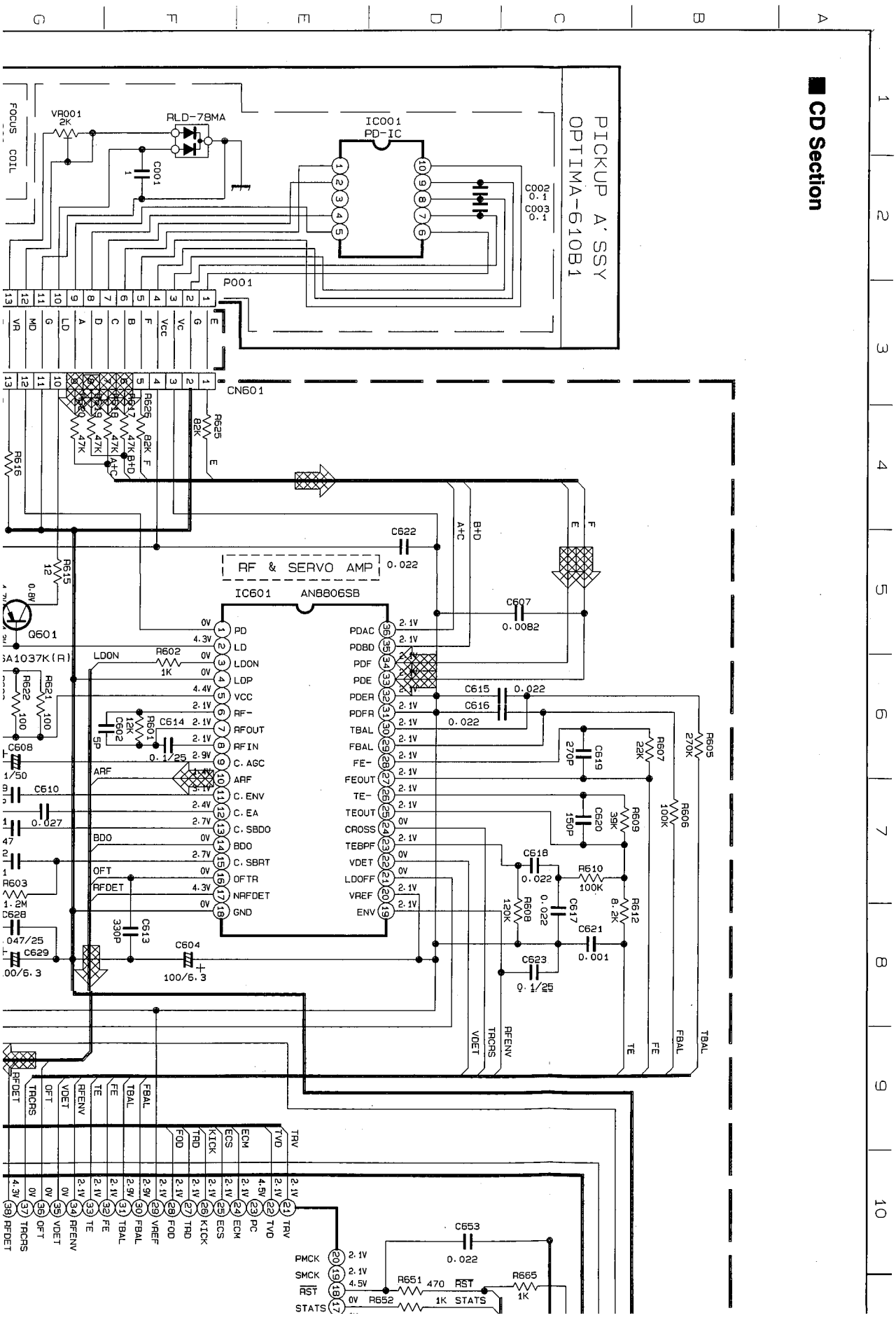

MECHA
REC LEVEL
P.B EQ/REC AMP /M.SCAN/ALC
DOLBY NR
DECK P.B AMP
CAPSTAN MOTOR CONTROL
BIAS OSC
BIAS ADJ
BIAS+10V
IC541 HA12206NT
IC502 NJM4558D-D (1/2)
IC502 NJM4558D-D (2/2)
Q584 KRA104M
Q583 KRA104M
Q581 2SK373(Q,Y)
Q585 2SD2144S (VW)
Q586 2SD2144S (VW)
Q724 KRC104M
Q721 2SC1741AS (Q,R)
Q525 2SC2060 (Q,R)
D522 MTZ11JC
D581 1SS133
D582 1SS133
D521 1SS133
TP502 NR TP
CN502

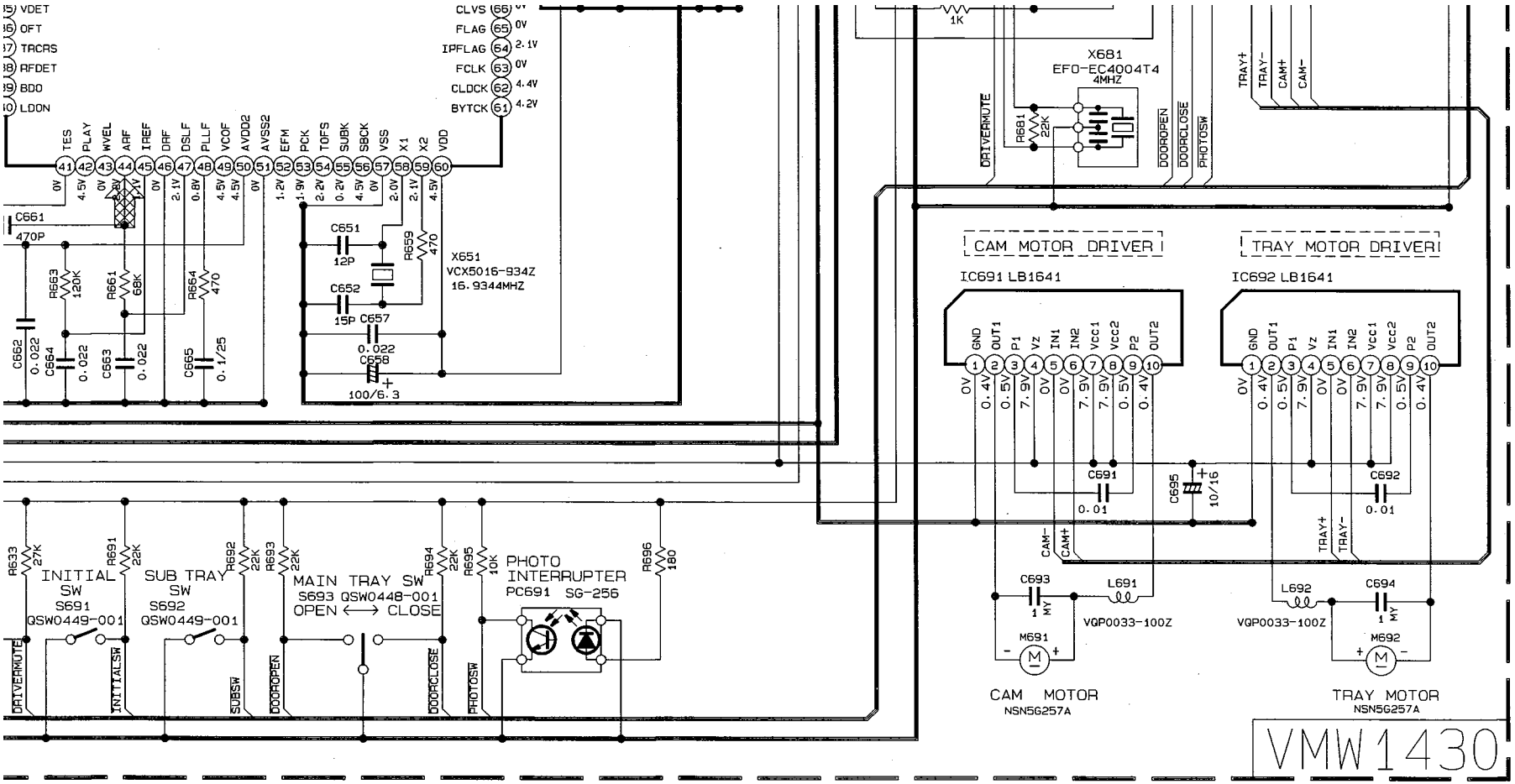
P3-35-a P3-35-b



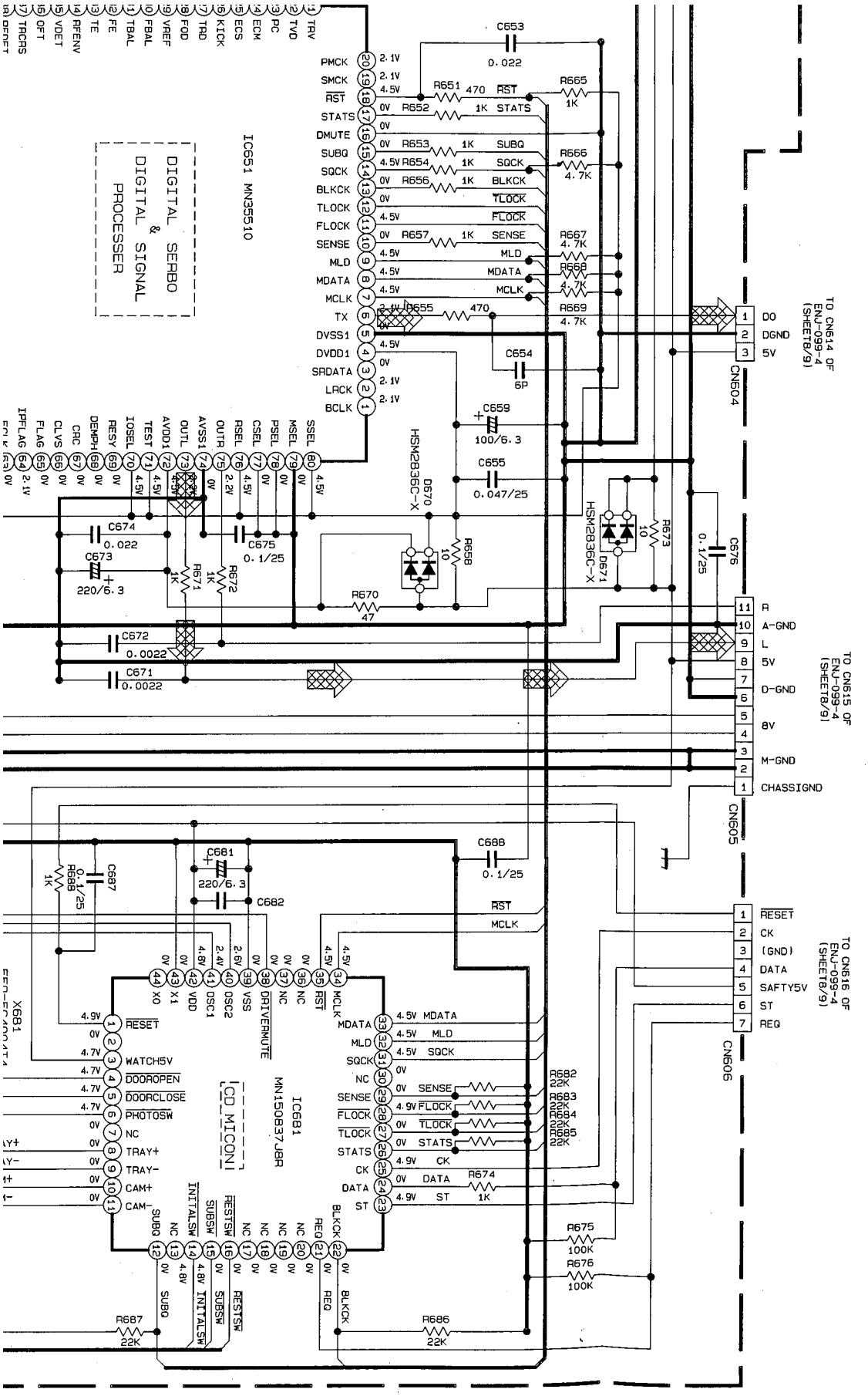
P3-35-c P3-35-d


EMW20030
VMW2958
VMW2958
FEED MOTOR
PPN-13KA10C
REST SW
S699
VSH1173-001
SPINDLE MOTOR
MDN3BT3CSDS
CN699
RESTGND
RESTSW
FM+
FM-
SM-
SM+
TRACKING COIL
FOCUS COIL
E408652
FOCUS & SPINDLE & FEED & TRACKING BTL DRIVER
IC641 BA6897FPW
CH1-OUTA
CH1-OUTB
CH1-INA
CH1-INB
Tr-B
Vreg-OUT
NUTE
GND
CH2-INB
CH2-INA
CH2-OUTB
CH2-OUTA
GND
OP-OUT
CH4-OUTA
CH4-OUTB
CH4-INA
CH4-INB
BIAS IN
Vcc
Vcc
CH3-INB
CH3-INA
CH3-OUTB
CH3-OUTA
OP(+)
OP(-)
+5V REG
2SA952(L,K)
Q631
2SA1037K
R631
330
R647
1.8K
R648
4.7K
R549
8.2K
R641
100K
R642
6.8K
R645
1.8K
R646
12K
R644
22K
R643
R613
120
R614
10
R616
91
R603
1.2M
R633
27K
R663
120K
R691
C631
100/10
C632
0.047/25
C633
0.0022
C634
0.0022
C605
10/16
C608
1/50
C609
100P
C611
0.0047
C612
0.01
C628
0.047/25
C629
100/6.3
C666
220/6.3
C662
0.022
C664
0.022
C663
C661
470P
C661
TP601
GND
TP602
ARF
DRIVEARMUTE
INITIALSW
INITIAL SW
S691
QSW0449-001
TES
PLAY
WVEL
ARF
LDON
BDO
RFDET
TRCRS
OFT
FOD
KICK
TRD
ECS
ECM
TRV
TVD


CD Section
PICKUP A'SSY
OPTIMA-610B1
VR001
2K
RLD-78MA
IC001
PD-IC
C001
C002
0.1
C003
0.1
P001
CN601
R616
R625
82K
R615
12
Q601
C622
0.022
RF & SERVO AMP
IC601 AN8806SB
C607
0.0082
C615
0.022
C616
0.022
R605
270K
R606
100K
R607
22K
R609
39K
R610
100K
R612
8.2K
C618
0.022
C619
270P
C620
150P
C621
0.001
C623
0.1/25
R608
120K
C617
0.022
C604
100/6.3
C613
330P
C614
C602
3P
R601
12K
C608
1/50
C610
0.027
R603
1.2M
C628
.047/25
C629
.00/6.3
R622
100
R621
100
R602
1K
LDON
ARF
BDO
OFT
RFDET
PD
LD
LDON
LDP
VCC
RF-
RFOUT
RFIN
C. AGC
ARF
C. ENV
C. EA
C. SBDO
BDO
C. SBRT
OFTR
NRFDET
GND
PDAC
PDBD
PDF
PDE
PDER
PDFR
TBAL
FBAL
FE-
FEOUT
TE-
TEOUT
CROSS
TEBPF
VDET
LDOFF
VREF
ENV
A+C
B+D
E
F
TBAL
FBAL
FE
TE
RFENV
TRCRS
VDET
RFDET
TRCRS
OFT
VDET
RFENV
TE
FE
TBAL
FBAL
VREF
FOD
TRD
KICK
ECS
ECM
PC
TVD
TRV
C653
0.022
PMCK
SMCK
RST
STATS
R651
470
R652
1K
R665
1K


VDET
OFT
TRCRS
RFDET
BDO
LDON
CLVS 66
FLAG 65 0V
IPFLAG 64 2.1V
FCLK 63 0V
CLDCK 62 4.4V
BYTCK 61 4.2V
TES PLAY WVEL ARF IREF DAF DSLF PLLF VCOF AVDD2 AVSS2 EFM PCK TOFS SUBK SBCK VSS X1 X2 VDD
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60
C661 470P
R663 120K
R661 68K
R664 470
C662 0.022
C664 0.022
C663 0.022
C665 0.1/25
C651 12P
C652 15P
C657 0.022
C658 100/6.3
R659 470
X651 VCX5016-934Z 16.9344MHZ
1K
X681 EFO-EC4004T4 4MHZ
R681 22K
DRIVEMUTE
DOOROPEN
DOORCLOSE
PHOTOSW
TRAY+
TRAY-
CAM+
CAM-
CAM MOTOR DRIVER
TRAY MOTOR DRIVER
IC691 LB1641
IC692 LB1641
GND OUT1 P1 Vz IN1 IN2 Vcc1 Vcc2 P2 OUT2
1 2 3 4 5 6 7 8 9 10
0V 0.4V 0.5V 7.9V 0V 0V 7.9V 7.9V 0.5V 0.4V
C691 0.01
C692 0.01
C695 10/16
L691 VGP0033-100Z
L692 VGP0033-100Z
C693 1 MY
C694 1 MY
M691
M692
CAM MOTOR NSN5G257A
TRAY MOTOR NSN5G257A
R633 27K
R691 22K
R692 22K
R693 22K
R694 22K
R695 10K
R696 180
INITIAL SW S691 QSW0449-001
SUB TRAY SW S692 QSW0449-001
MAIN TRAY SW S693 QSW0448-001 OPEN ⟷ CLOSE
PHOTO INTERRUPTER PC691 SG-256
INITIALSW
SUBSW
VMW1430

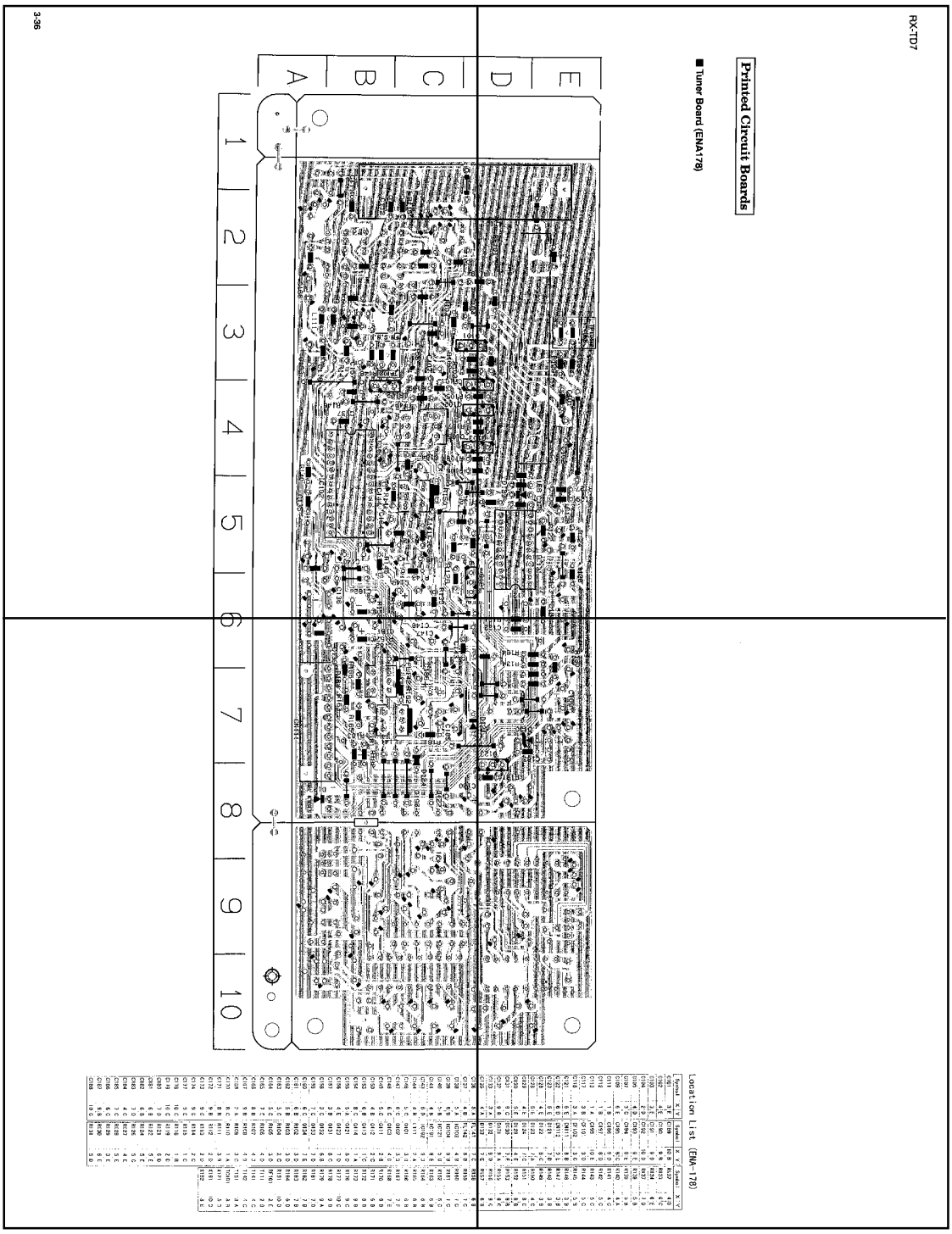
P3-35-c


IC651 MN35510
DIGITAL SERBO & DIGITAL SIGNAL PROCESSER
IC681 MN150837JBR
CD_MICON
HSM2836C-X
TO CN614 OF ENJ-099-4 (SHEET8/9)
TO CN615 OF ENJ-099-4 (SHEET8/9)
TO CN616 OF ENJ-099-4 (SHEET8/9)
CN604
CN605
CN606
DO
DGND
5V
R
A-GND
L
5V
D-GND
8V
M-GND
CHASSIGND
RESET
CK
(GND)
DATA
SAFTY5V
ST
REQ
PMCK
SMCK
RST
STATS
DMUTE
SUBQ
SQCK
BLKCK
TLOCK
FLOCK
SENSE
MLD
MDATA
MCLK
TX
DVSS1
DVDD1
SRDATA
LRCK
BCLK
C653 0.022
C654 6P
C655 0.047/25
C659 100/6.3
C672 0.0022
C671 0.0022
C673 220/6.3
C674 0.022
C675 0.1/25
C676 0.1/25
C681 220/6.3
C682
C687 0.1/25
C688 0.1/25
R651 470
R652 1K
R653 1K
R654 1K
R655 470
R656 1K
R657 1K
R658 10
R665 1K
R666 4.7K
R667 4.7K
R668 4.7K
R669 4.7K
R670 47
R671 1K
R672 1K
R673 10
R674 1K
R675 100K
R676 100K
R682 22K
R683 22K
R684 22K
R685 22K
R686 22K
R687 22K
X681

XT-TD7

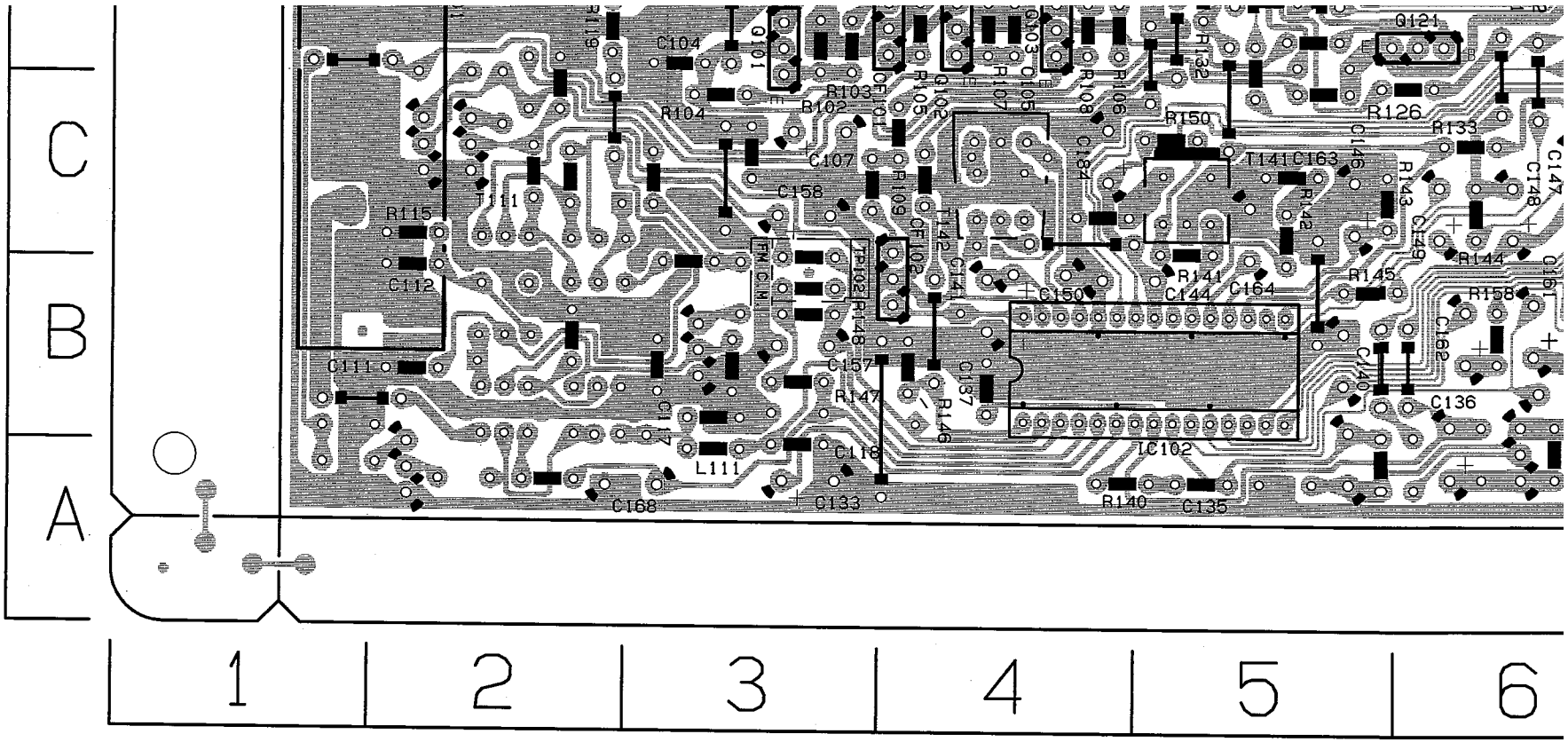
P3-36-a

P3-36-b



P3-36-c

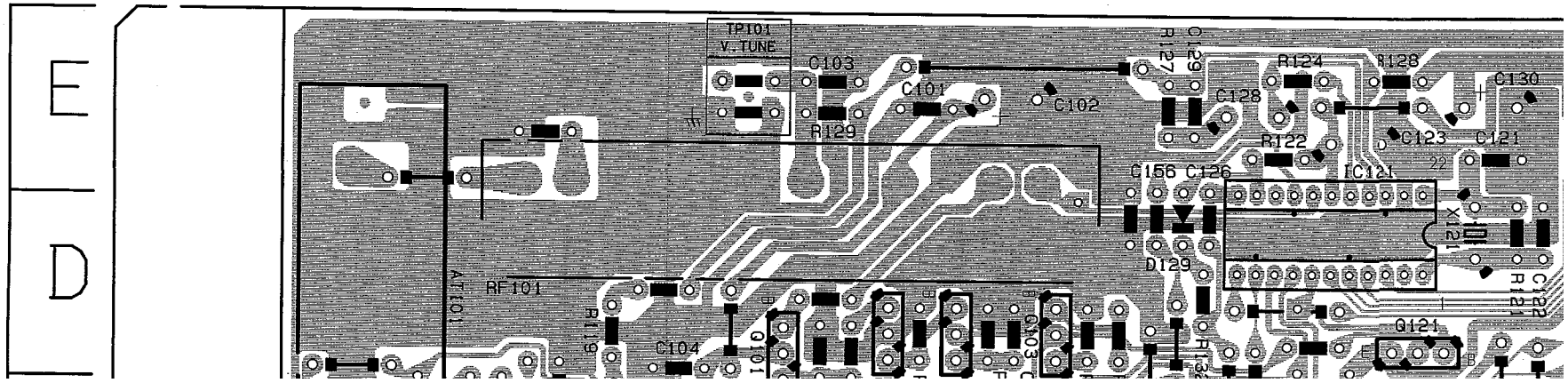
P3-36-d

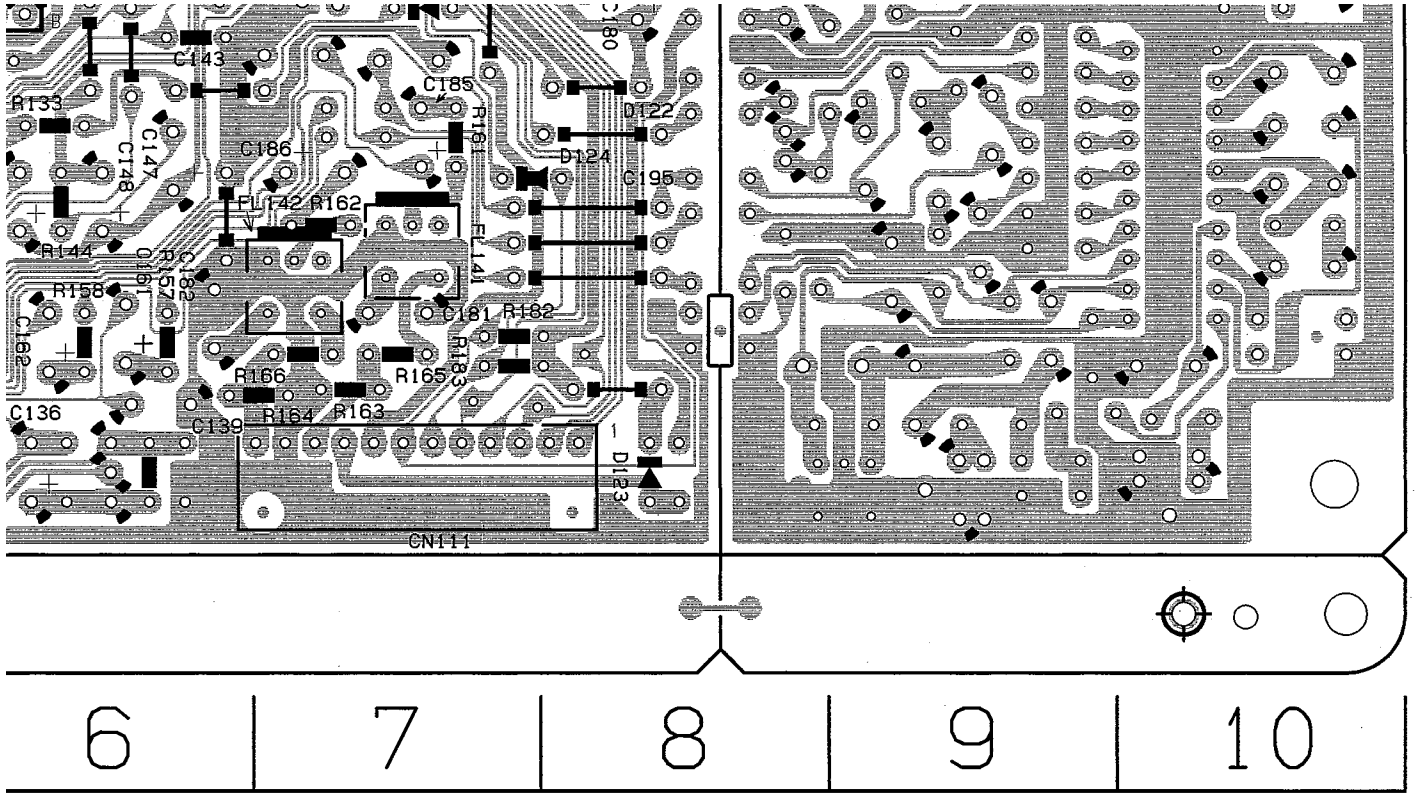

C
B
A
1
2
3
4
5
6
Q121
C104
Q101
R103
R102
R104
C107
R105
Q102
Q103
Q105
R107
R108
R106
R132
R150
R126
R133
C146
C147
C128
T141
C163
R143
C149
R144
R142
R141
C144
C164
R145
R158
C161
C162
C136
C140
C150
IC102
R140
C135
C133
C168
L111
C116
C157
R147
R148
C137
R146
C142
C141
C158
C117
C111
C112
R115
T111
R119
C109
CF102
CF101
TP102
FM
CN

P3-36-a

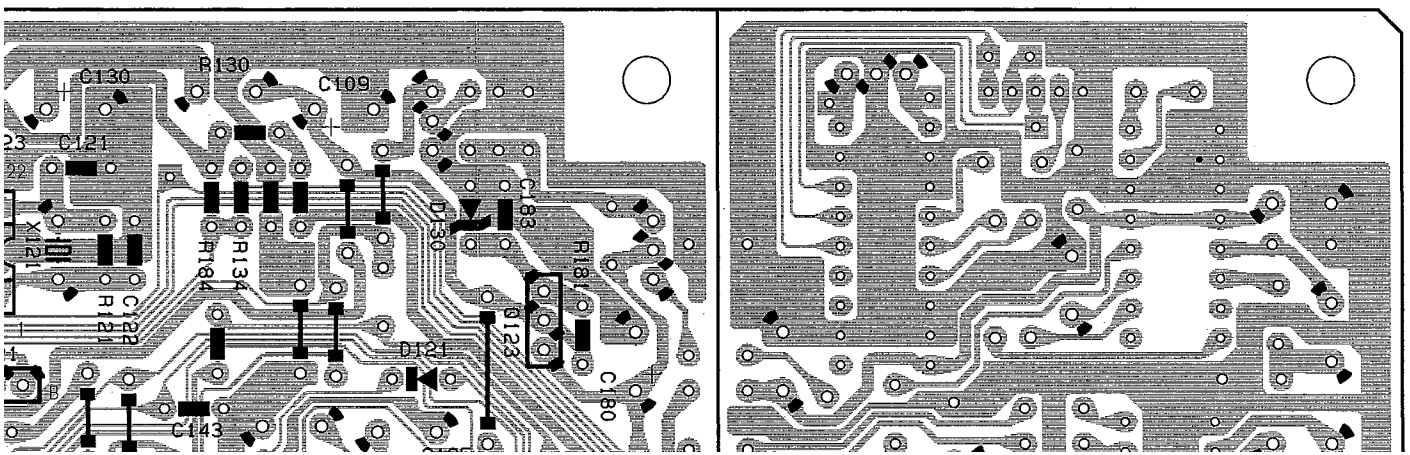
Printed Circuit Boards

■ Tuner Board (ENA178)





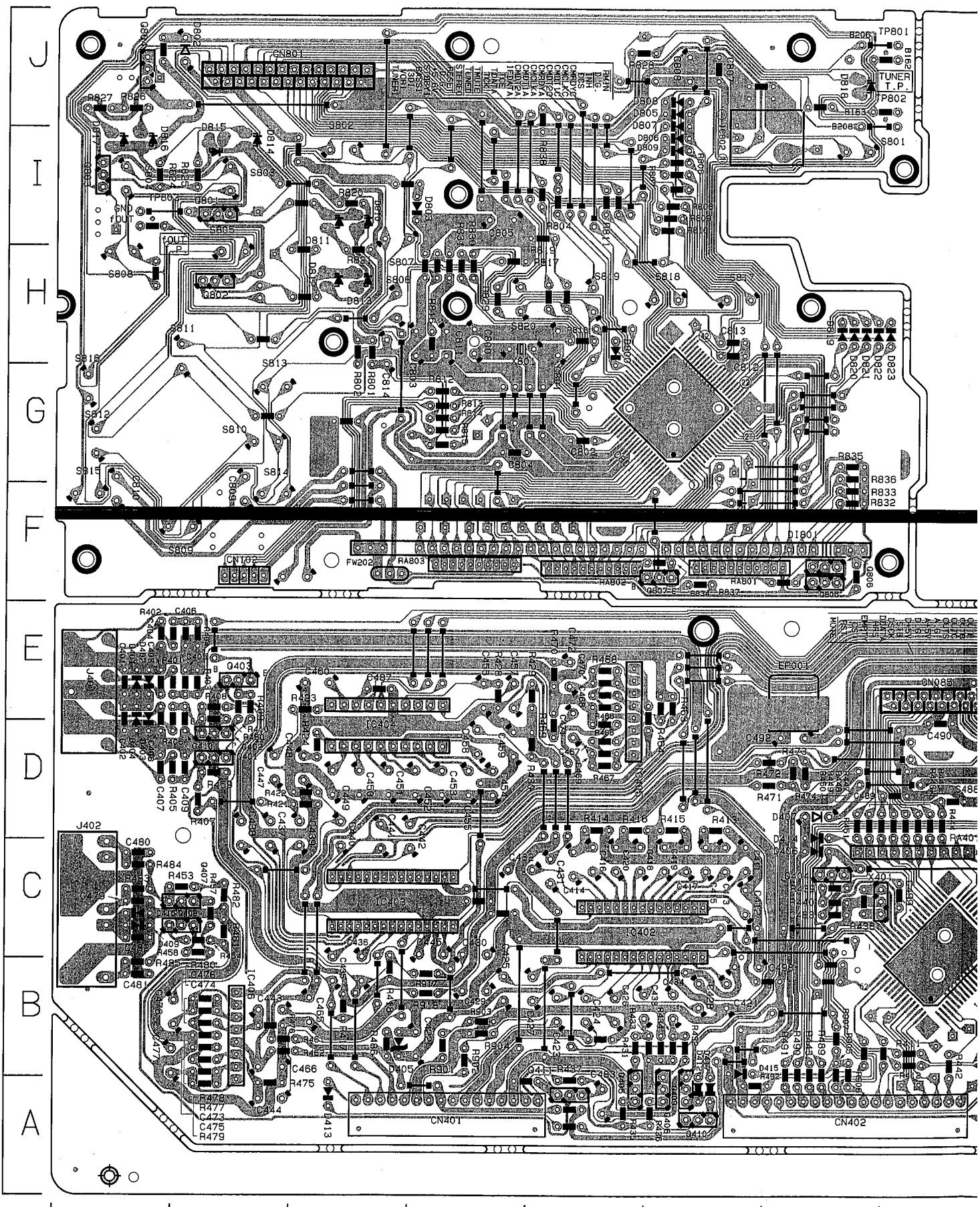
C136	5 A	FL141	7 C	R158	6 B
C137	4 B	FL142	6 B	R159	7 C
C138	5 A	IC102	4 B	R160	7 C
C139	6 B	IC104	9 B	R161	7 C
C140	5 B	IC121	5 D	R162	6 C
C141	4 B	IC191	8 E	R163	6 B
C143	6 D	IC192	9 D	R164	6 B
C144	4 B	L111	2 A	R165	6 B
C146	5 C	Q101	3 D	R166	6 B
C147	6 C	Q102	3 D	R167	7 E
C148	6 C	Q103	4 D	R168	7 E
C149	5 C	Q111	2 B	R170	9 B
C150	4 B	Q112	2 C	R171	9 B
C153	6 B	Q113	1 C	R172	8 B
C154	8 C	Q114	1 A	R173	9 B
C155	5 A	Q121	5 D	R176	9 C
C156	4 E	Q123	7 D	R177	10 C
C157	3 B	Q131	8 C	R178	9 B
C158	3 C	Q132	6 B	R179	9 A
C159	7 C	Q133	7 D	R181	7 D
C160	6 C	Q134	7 E	R182	7 B
C161	6 B	R102	3 D	R183	7 B
C162	5 B	R103	3 D	R184	6 D
C163	5 C	R104	2 C	R191	10 D
C164	5 C	R105	3 D	RF101	2 E
C165	7 E	R106	4 D	T111	2 B
C166	8 B	R107	4 D	T141	4 C
C167	9 B	R108	4 D	T142	4 C
C168	2 A	R109	3 C	T151	8 A
C170	8 C	R110	1 A	TC101	8 B
C171	8 B	R111	3 B	X121	5 D
C172	9 B	R112	2 D	X191	10 D
C173	9 C	R113	2 D	X192	8 E
C174	9 C	R114	2 C		
C177	9 C	R115	1 C		
C178	10 C	R116	1 B		
C179	10 C	R119	2 D		
C180	7 D	R121	6 D		
C181	6 B	R122	5 E		
C182	6 B	R124	5 E		
C183	7 D	R126	5 C		
C184	4 C	R127	4 E		
C185	7 C	R128	5 E		
C186	6 C	R129	3 E		
C187	9 B	R130	6 E		
C188	10 C	R131	5 D		

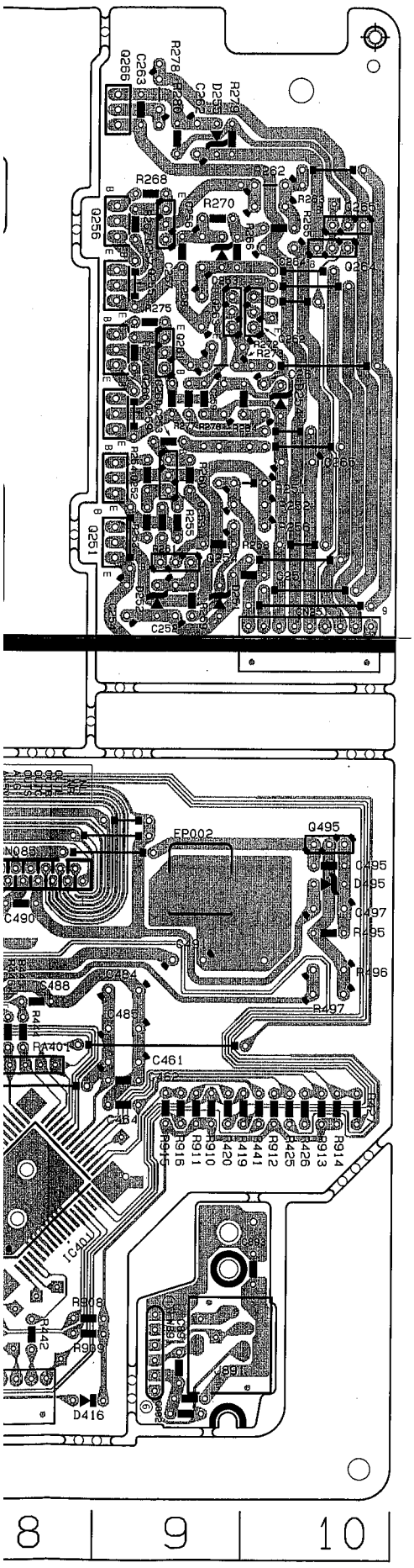


Location List (ENA-178)

Symbol	X	Y	Symbol	X	Y	Symbol	X	Y
C101	3	E	C189	10	B	R132	4	D
C102	4	E	C190	9	B	R133	6	C
C103	3	E	C191	9	D	R134	6	E
C104	2	D	C192	10	D	R137	7	D
C105	4	D	C193	9	E	R138	5	B
C107	3	C	C194	9	E	R139	5	B
C109	6	E	C195	8	C	R140	4	A
C111	1	B	C196	9	D	R141	4	C
C112	1	B	C197	8	D	R142	5	C
C113	1	A	C199	10	E	R143	5	C
C117	3	B	CF101	3	D	R144	5	C
C118	3	A	CF102	3	C	R145	5	B
C121	5	E	CN111	6	B	R146	3	B
C122	6	D	CN112	9	E	R147	3	B
C123	5	E	D121	7	D	R148	3	B
C126	4	E	D122	8	C	R149	3	B
C128	5	E	D123	7	A	R150	4	C
C129	4	E	D124	7	C	R151	8	C
C130	5	E	D129	4	E	R152	8	B
C131	9	C	D130	7	E	R153	8	B
C132	9	B	D131	8	A	R155	8	C
C133	3	A	D132	9	D	R156	9	C
C135	4	A	D133	7	E	R157	6	B
C136	5	A	FL141	7	C	R158	6	B
C137	4	B	FL142	6	B	R159	7	C
C138	5	A	IC102	4	B	R160	7	C

■ Amp Tuner Control Board (ENB-253)





■ Location List (ENB-253)

Symbol	X	Y
C251	10	G
C252	9	G
C253	9	H
C254	9	G
C256	9	I
C257	9	I
C258	9	H
C259	9	H
C260	9	H
C261	10	G
C262	9	J
C263	9	J
C264	10	I
C265	10	H
C401	1	E
C402	1	E
C403	1	E
C404	1	E
C405	2	E
C406	2	E
C407	1	D
C408	1	E
C409	2	D
C410	2	E
C411	6	C
C412	6	C
C413	6	C
C414	5	C
C415	6	C
C416	5	C
C417	6	C
C418	5	C
C419	6	C
C420	5	C
C421	6	B
C422	4	B
C423	5	B
C424	5	B
C425	4	B
C426	5	B
C427	5	B
C428	6	B
C429	4	B
C430	4	C
C431	5	C
C432	5	C
C433	5	B
C434	6	B
C435	3	C
C436	3	C
C437	2	C
C438	2	C
C439	3	C
C440	3	C
C441	3	C
C442	4	C
C443	2	B
C444	2	A
C445	4	C
C447	2	D
C448	3	D
C449	3	D
C450	3	D
C451	3	D
C452	4	D
C453	4	D
C454	4	D
C455	4	D
C456	4	E
C457	4	E
C458	4	D
C459	4	D

Symbol	X	Y
C460	3	E
C461	9	C
C462	9	C
C463	7	C
C464	9	C
C465	3	B
C466	2	B
C467	5	D
C468	5	E
C469	5	D
C470	5	E
C471	5	D
C472	5	E
C473	2	B
C474	2	B
C475	2	B
C476	2	B
C477	2	B
C478	2	B
C479	1	C
C480	1	C
C481	1	B
C482	1	C
C483	5	A
C484	9	D
C485	9	D
C487	3	E
C488	8	D
C489	8	D
C490	8	D
C491	9	D
C492	7	D
C495	10	E
C497	10	D
C498	6	B
C499	8	C
C800	4	H
C801	5	H
C802	5	G
C803	4	H
C804	4	G
C805	4	I
C807	6	J
C808	6	J
C809	2	G
C810	1	G
C811	4	H
C812	6	H
C813	6	H
C814	3	G
C891	9	A
C892	9	A
C893	10	B
CN085	8	E
CN102	2	F
CN251	10	F
CN401	3	A
CN402	6	A
CN801	2	J
C0002	8	B
D251	9	F
D252	9	F
D253	9	I
D254	10	H
D255	9	J
D401	1	E
D402	1	E
D403	1	E
D404	1	D
D405	3	B
D406	7	C
D407	7	D

Symbol	X	Y
D409	1	C
D410	1	C
D412	6	B
D413	3	A
D414	7	D
D415	6	B
D416	8	A
D417	6	B
D495	10	E
D800	5	H
D802	2	J
D803	4	I
D805	6	J
D806	6	I
D807	6	J
D808	6	J
D809	6	I
D810	3	I
D811	3	I
D812	3	H
D813	3	H
D814	2	I
D815	2	I
D816	1	I
D817	1	I
D818	7	J
D819	7	H
D820	7	H
D821	7	H
D822	7	H
D823	8	H
DI801	7	F
IC401	8	C
IC402	6	C
IC403	4	C
IC404	3	E
IC405	5	D
IC406	2	A
IC801	6	G
IC802	7	I
J401	0	E
J402	1	C
J891	9	B
Q251	9	G
Q252	9	G
Q253	9	G
Q254	9	G
Q255	9	I
Q256	9	I
Q257	9	I
Q259	9	H
Q260	9	H
Q261	9	H
Q262	10	I
Q263	9	I
Q264	10	I
Q265	10	I
Q266	9	J
Q401	2	D
Q402	2	D
Q403	2	E
Q404	7	C
Q405	5	A
Q406	6	A
Q407	2	C
Q408	2	C
Q409	6	A
Q410	6	A
Q411	5	A
Q495	10	E
Q801	2	I
Q802	2	H

Symbol	X	Y
Q803	1	I
Q804	1	J
Q805	7	F
Q806	7	F
Q807	5	F
R251	9	G
R252	9	G
R253	9	G
R254	9	G
R255	9	G
R256	10	G
R258	9	G
R259	9	F
R260	9	G
R261	9	G
R262	10	I
R263	10	I
R264	9	H
R265	10	I
R266	9	I
R267	9	I
R268	9	I
R270	9	I
R272	9	H
R273	9	H
R274	9	H
R275	9	H
R276	9	H
R277	9	H
R278	9	J
R279	9	J
R280	9	J
R401	2	E
R402	2	E
R403	2	E
R404	2	E
R405	2	D
R406	2	D
R407	2	D
R408	2	E
R409	2	E
R410	2	E
R411	8	B
R412	8	B
R413	6	D
R414	5	D
R415	6	D
R416	5	D
R417	3	B
R418	3	C
R419	10	C
R420	9	C
R421	3	D
R422	3	D
R423	3	E
R424	3	D
R425	10	C
R426	10	C
R427	10	C
R428	4	E
R429	5	E
R430	5	D
R431	5	B
R432	6	B
R433	6	B
R434	6	B
R435	5	A
R436	6	A
R437	5	A
R438	7	C
R439	7	C
R440	7	C

Symbol	X	Y
R441	10	C
R442	8	B
R443	7	B
R444	8	D
R445	8	D
R446	8	D
R447	8	D
R448	8	D
R449	7	D
R450	7	D
R451	7	D
R453	2	C
R454	2	C
R457	2	C
R458	2	C
R459	2	D
R460	2	E
R461	3	B
R462	3	B
R463	6	E
R464	6	E
R465	5	D
R466	5	E
R467	5	D
R468	5	E
R469	5	D
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R471	6	D
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R481	2	C
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R483	1	C
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R485	1	B
R486	3	B
R489	7	B
R490	7	B
R491	7	B
R492	7	A
R495	10	D
R496	10	D
R497	10	D
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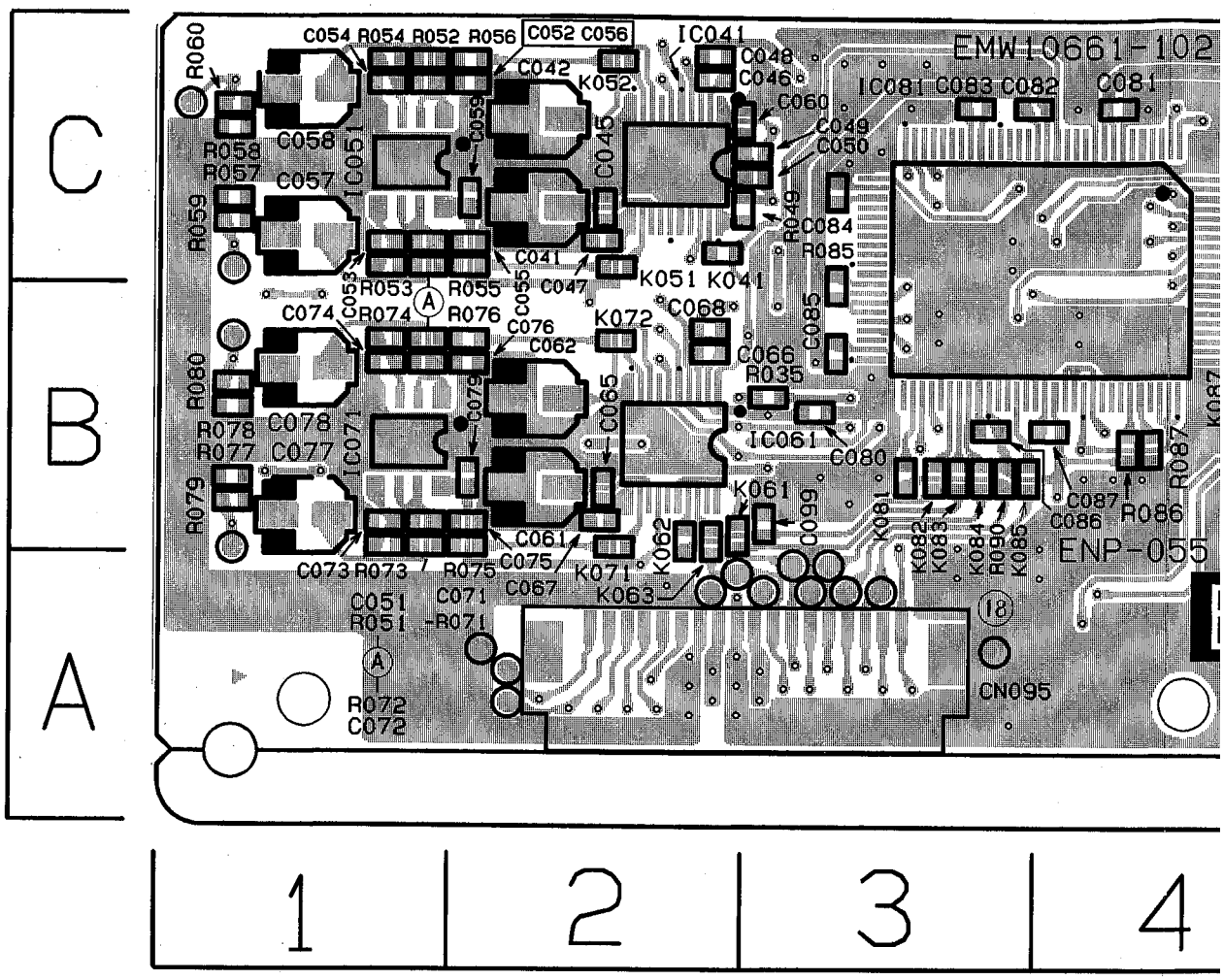
R802	3	G
R804	5	I
R806	6	I
R807	6	I
R808	6	I
R809	6	I
R810	6	I
R811	5	I
R812	4	G
R813	4	G
R814	4	G
R815	4	G
R816	4	H
R817	4	H
R818	5	H
R819	4	I
R820	3	I
R821	3	H
R824	1	I
R825	2	I
R826	1	J

Symbol	X	Y
R827	1	J
R828	6	J
R829	4	H
R830	4	H
R831	4	H
R832	7	F
R833	7	F
R834	5	F
R835	7	G
R836	7	G
R837	6	F
R838	5	J
R901	4	B
R902	4	B
R903	4	B
R904	4	B
R905	7	A
R906	7	A
R907	7	B
R908	9	B
R909	9	B
R910	9	C
R911	9	C
R912	10	C
R913	10	C
R914	10	C
R915	9	C
R916	9	C
R917	4	B
R918	4	B
RA401	7	C
RA801	7	F
RA802	5	F
RA803	4	F
S801	7	I
S802	3	I
S803	2	I
S804	1	I
S805	2	H
S806	3	H
S807	3	I
S808	1	H
S809	2	F
S810	2	G
S811	2	H
S812	1	G
S813	2	G
S814	2	F
S815	1	F
S816	1	G
S817	6	H
S818	6	H
S819	5	H
S820	4	H
TW402	6	D
X1	10	H
X2	10	H
X4	2	F
X401	7	C
X5	2	H
X801	4	H

■ 3D-Phonic P. C. Board (ENP-055)

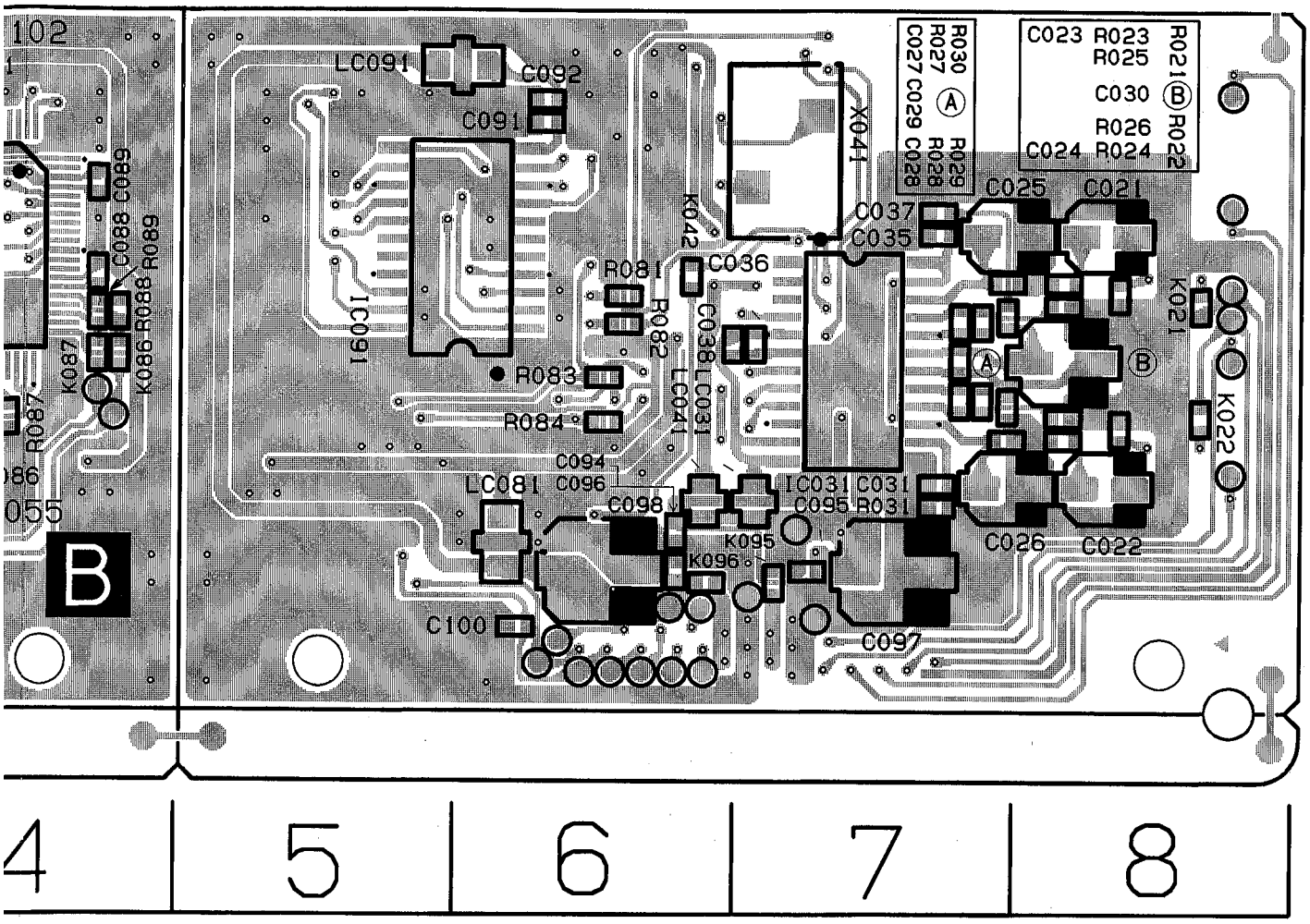


Location List (ENP-055)

Symbol	X	Y
C021	8	C
C022	8	B
C023	7	B
C024	7	B
C025	7	C
C026	7	B
C027	7	B
C028	7	B
C029	7	B
C030	8	B
C031	7	B
C035	7	C
C036	7	B
C037	7	C
C038	6	B
C041	2	C
C042	2	C
C045	2	C
C046	2	C
C047	2	C
C048	2	C

Symbol	X	Y
C049	3	C
C050	3	C
C051	1	C
C052	1	C
C053	1	C
C054	1	C
C055	2	C
C056	2	C
C057	1	C
C058	1	C
C059	2	C
C060	2	C
C061	2	B
C062	2	B
C065	2	B
C066	2	B
C067	2	B
C068	2	B
C071	1	B
C072	1	B
C073	1	B

Sym
C074
C075
C076
C077
C078
C079
C080
C081
C082
C083
C084
C085
C086
C087
C088
C089
C091
C092
C094
C095
C096



Symbol	X	Y
C074	1	B
C075	2	B
C076	2	B
C077	1	B
C078	1	B
C079	2	B
C080	3	B
C081	4	C
C082	3	C
C083	3	C
C084	3	C
C085	3	B
C086	3	B
C087	4	B
C088	4	B
C089	4	C
C091	6	C
C092	6	C
C094	6	A
C095	7	A
C096	6	A

Symbol	X	Y
C097	7	A
C098	6	A
C099	3	B
C100	6	A
CN095	2	A
IC031	7	B
IC041	2	C
IC051	1	C
IC061	2	B
IC071	1	B
IC081	4	C
IC091	5	C
K021	8	B
K022	8	B
K042	6	B
K051	2	C
K052	2	C
K061	2	B
K062	2	B
K063	2	B
K071	2	B

Symbol	X	Y
K072	2	B
K081	3	B
K082	3	B
K083	3	B
K084	3	B
K085	3	B
K086	4	B
K087	4	B
K095	7	A
K096	6	A
LC031	7	B
LC041	6	B
LC081	6	A
LC091	5	C
R021	8	B
R022	8	B
R023	8	B
R024	8	B
R025	8	B
R026	8	B
R027	7	B

Symbol	X	Y
R028	7	B
R029	7	B
R030	7	B
R031	7	B
R035	3	B
R049	2	C
R051	1	C
R052	1	C
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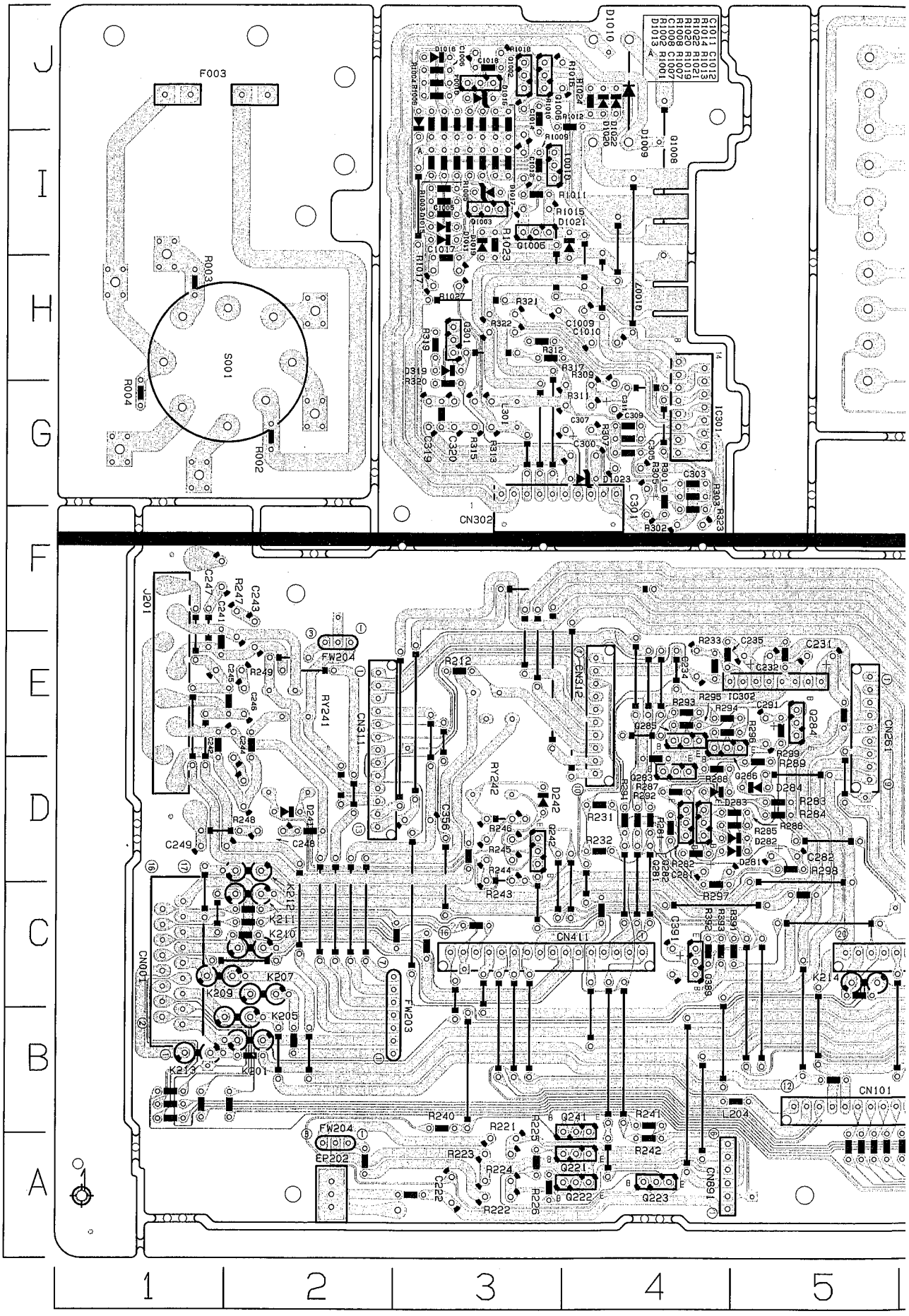
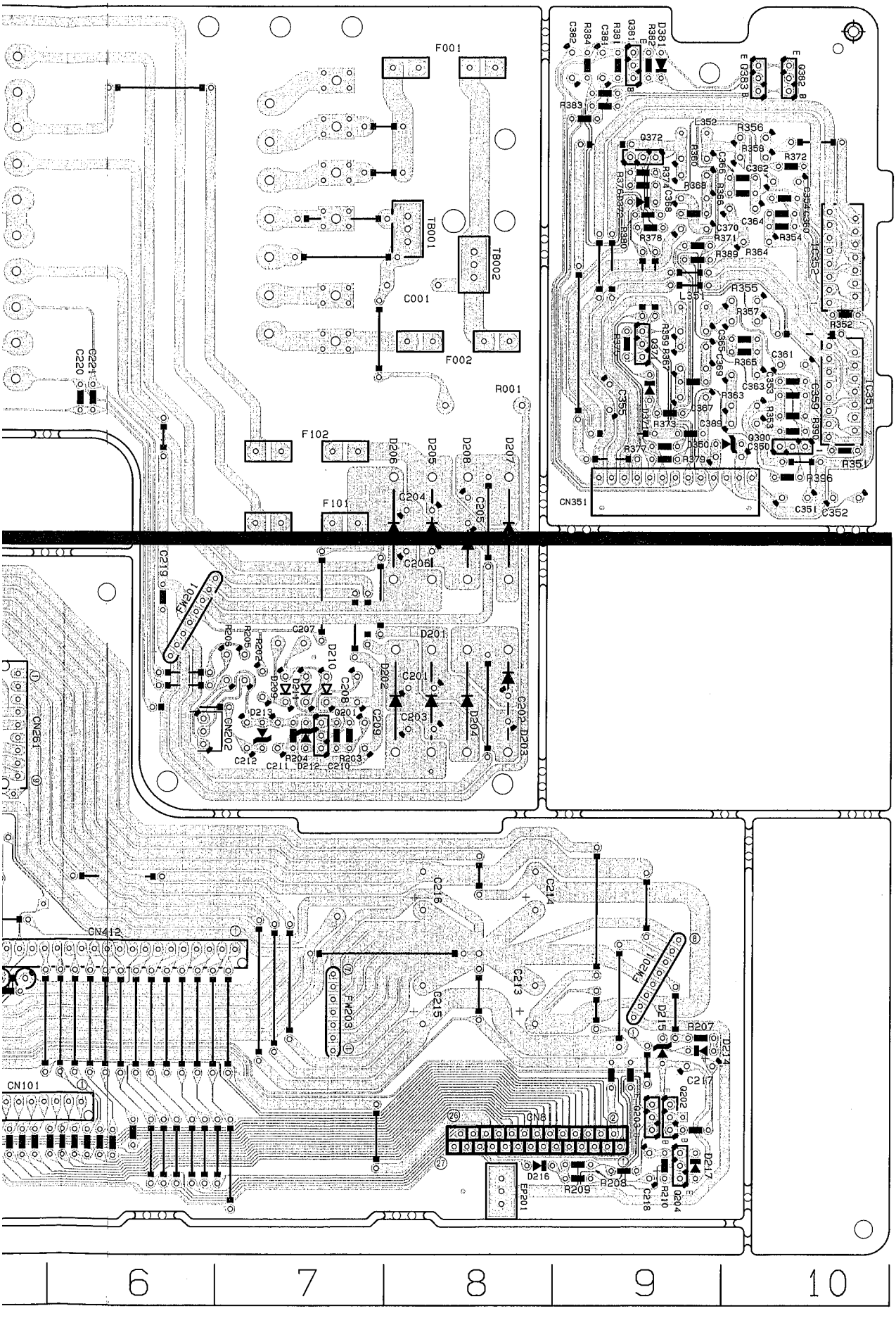
R054	1	C
R055	2	C
R056	2	C
R057	1	C
R058	1	C
R059	1	C
R060	1	C
R071	1	B
R072	1	B
R073	1	B
R074	1	B
R075	2	B

Symbol	X	Y
R076	2	B
R077	1	B
R078	1	B
R079	1	B
R080	1	B
R081	6	B
R082	6	B
R083	6	B
R084	6	B
R085	3	C
R086	4	B
R087	4	B
R088	4	B
R089	4	B
R090	3	B
X041	7	C

■ Power supply Board (ENH-307)




F001
TB001
TB002
C001
F002
R001
F102
F101
D206
D205
D208
D207
C204
C205
C206
C220
C221
C219
FW201
C207
D210
D209
D211
C208
D213
Q201
C209
C212
R204
C211
D212
C210
R203
D201
D202
C201
C203
D204
C202
D203
CN202
CN261
CN412
C216
C214
C213
C215
FW203
FW201
D215
R207
D214
C217
Q202
CN101
CN9
D216
R209
R208
C218
R210
Q204
D217
EP201
CN351
L352
R356
Q372
R358
R360
C366
R372
C362
R374
C368
R368
C364
C370
R378
R371
R354
R389
R364
C352
L353
R355
L354
R357
R352
Q373
R359
R367
C365
C369
C361
R365
C363
C355
C367
R363
R353
C359
R390
C351
R373
C389
R377
R350
Q390
C350
R379
R351
R396
C351
C352
6
7
8
9
10

■ Location List (ENH-307)

Symbol	X	Y
C001	7	H
C1005	3	I
C1006	3	J
C1007	3	I
C1008	3	J
C1009	3	H
C1010	4	H
C1011	3	J
C1012	3	I
C1013	3	I
C1014	3	J
C1017	3	H
C1018	3	J
C201	8	E
C202	8	E
C203	8	E
C204	8	F
C205	8	F
C206	8	F
C207	7	E
C208	7	E
C209	7	E
C210	7	E
C211	7	E
C212	7	E
C213	8	B
C214	8	C
C215	8	B
C216	8	C
C217	9	B
C218	9	A
C219	6	F
C220	6	G
C221	6	G
C222	3	A
C231	5	E
C232	5	E
C234	4	E
C235	4	E
C241	1	F
C242	1	D
C243	2	F
C244	2	D
C245	2	E
C246	2	E
C247	1	F
C248	2	D
C249	1	D
C281	4	D
C282	5	D
C291	5	E
C300	4	G
C301	4	G
C303	4	G
C305	4	G
C307	3	G
C309	4	G
C311	4	G
C319	3	G
C320	3	G
C350	10	G
C351	10	G
C352	10	G
C353	10	G
C354	10	I
C355	9	G
C356	3	D
C359	10	G
C360	10	I
C361	10	H
C362	10	I
C363	9	H

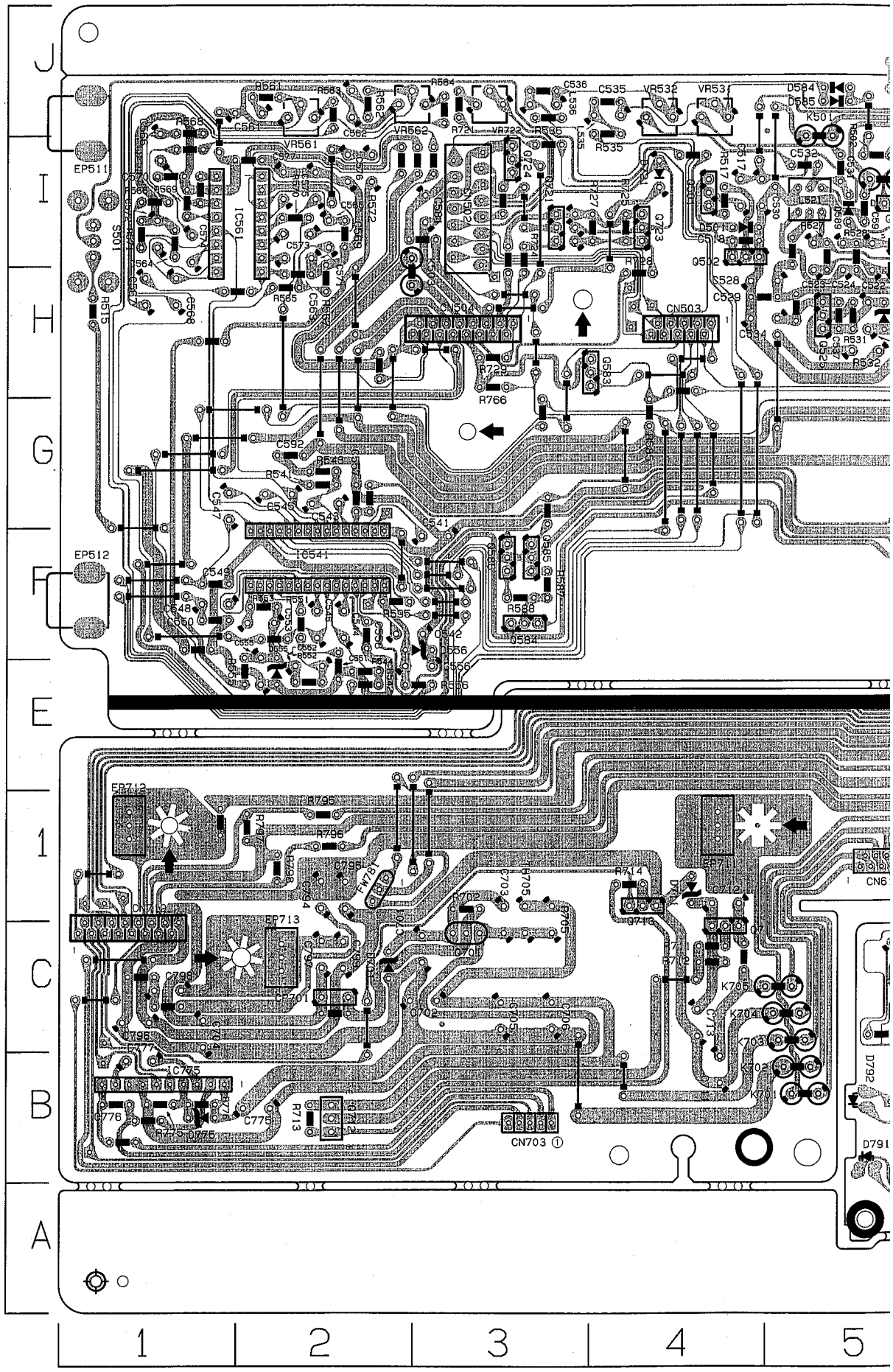
Symbol	X	Y
C364	9	I
C365	10	H
C366	10	I
C367	9	G
C368	9	I
C369	9	H
C370	9	I
C381	9	J
C382	9	J
C389	10	G
C391	4	C
CN001	1	B
CN101	5	B
CN202	6	E
CN261	5	E
CN302	3	G
CN311	2	D
CN312	4	D
CN351	9	G
CN411	3	C
CN412	5	C
CN811	9	A
CN891	4	A
D1009	4	I
D1010	4	I
D1011	3	I
D1013	3	J
D1015	3	I
D1016	3	J
D1017	3	I
D1018	3	J
D1019	3	H
D1020	4	J
D1021	3	H
D1022	4	J
D1023	4	G
D201	8	E
D202	7	E
D203	8	E
D204	8	E
D205	8	F
D206	7	F
D207	8	F
D208	8	F
D209	7	E
D210	7	E
D211	7	E
D212	7	E
D213	7	E
D214	9	B
D215	9	B
D216	8	A
D217	9	A
D241	2	D
D242	3	D
D281	4	D
D282	4	D
D283	4	D
D284	5	D
D319	3	H
D350	9	G
D371	9	G
D372	9	I
D381	9	J
F001	7	J
F002	8	H
F003	2	J
F101	7	F
F102	7	G
IC301	4	G
IC302	4	E
IC351	10	G

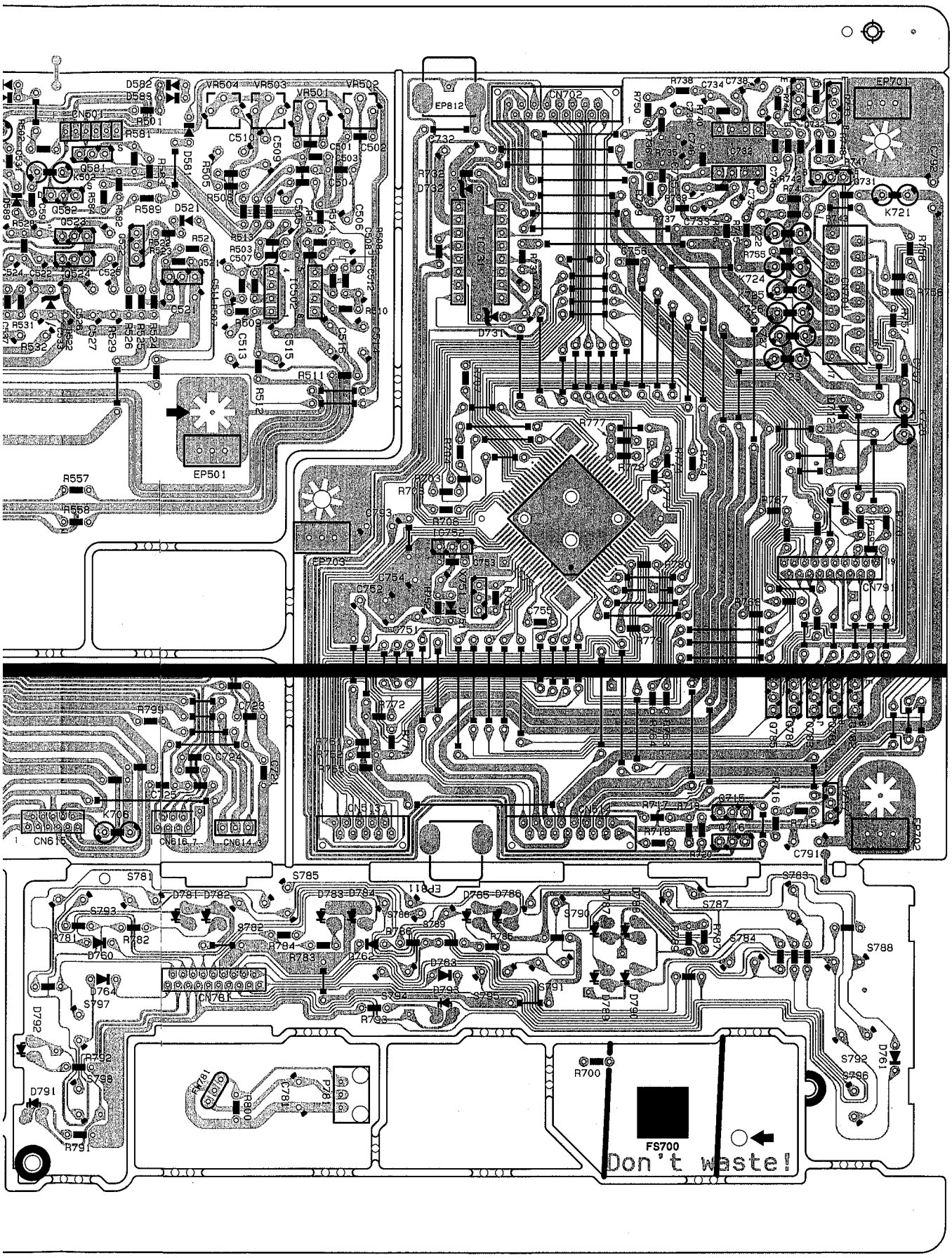
Symbol	X	Y
IC352	10	H
J201	1	F
K201	2	B
K205	2	B
K207	2	C
K209	2	C
K210	2	C
K211	2	C
K212	2	D
K213	1	B
K214	5	C
L204	5	B
L301	3	G
L351	9	H
L352	9	I
Q1001	3	I
Q1002	3	J
Q1003	3	I
Q1004	3	J
Q1005	3	I
Q1006	3	J
Q1007	4	H
Q1008	4	I
Q201	7	E
Q202	9	A
Q203	9	A
Q204	9	A
Q221	3	A
Q222	3	A
Q223	4	A
Q241	3	B
Q242	3	D
Q281	4	D
Q282	4	D
Q283	4	D
Q284	5	E
Q285	4	E
Q286	4	E
Q301	3	H
Q371	9	H
Q372	9	I
Q381	9	J
Q382	10	J
Q383	10	J
Q389	4	C
Q390	10	G
R001	8	G
R002	2	G
R003	1	H
R004	1	G
R1001	3	I
R1002	3	I
R1003	3	I
R1004	3	J
R1005	3	I
R1006	3	J
R1007	3	I
R1008	3	I
R1009	3	I
R1010	3	I
R1011	3	I
R1012	3	J
R1013	3	I
R1014	3	I
R1015	3	I
R1016	3	J
R1017	3	H
R1018	3	J
R1019	3	I
R1020	3	I
R1021	3	I
R1022	3	I

Symbol	X	Y
R1023	3	I
R1024	4	J
R1027	3	H
R202	7	E
R203	7	E
R204	7	E
R205	7	E
R206	7	E
R207	9	B
R208	9	A
R209	9	A
R210	9	A
R212	3	E
R221	3	A
R222	3	A
R223	3	A
R224	3	A
R225	3	A
R226	3	A
R231	4	D
R232	4	D
R233	4	E
R240	3	B
R241	4	B
R242	4	A
R243	3	D
R244	3	D
R245	3	D
R246	3	D
R247	2	F
R248	2	D
R249	2	E
R281	4	D
R282	4	D
R283	5	D
R284	5	D
R285	4	D
R286	4	D
R287	4	D
R288	4	D
R289	5	D
R291	4	D
R292	4	D
R293	4	E
R294	5	E
R295	4	E
R296	4	E
R297	4	C
R298	5	D
R299	5	E
R301	4	F
R302	4	F
R303	4	G
R305	4	G
R307	4	G
R309	3	G
R311	3	G
R312	3	H
R313	3	G
R315	3	G
R317	3	H
R319	3	H
R320	3	G
R321	3	H
R322	3	H
R323	4	F
R351	10	G
R352	10	H
R353	10	G
R354	10	I
R355	10	H
R356	10	I

Symbol	X	Y
R357	10	H
R358	10	I
R359	9	H
R360	9	I
R363	10	G
R364	10	I
R365	10	H
R366	10	I
R367	9	H
R368	9	I
R371	9	I
R372	10	I
R373	9	G
R374	9	I
R375	9	H
R376	9	I
R377	9	G
R378	9	I
R379	9	G
R380	9	I
R381	9	J
R382	9	J
R383	9	J
R384	9	J
R389	9	H
R390	10	G
R391	4	C
R392	4	C
R393	4	C
R396	10	G
RED	7	I
RY241	2	D
RY242	3	D
S001	1	H
TB001	8	I
TB002	8	H

■ CD Control Board (ENJ-099)





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■ Location List (ENJ-099)

Symbol	X	Y
C501	7	I
C502	7	I
C503	7	I
C504	7	I
C505	7	I
C506	7	I
C507	6	H
C508	7	H
C509	6	I
C510	6	I
C511	6	H
C512	7	H
C513	6	H
C514	7	H
C515	6	H
C516	7	H
C517	4	I
C518	4	I
C521	6	H
C522	5	H
C523	5	H
C524	5	I
C525	5	H
C526	5	H
C527	5	H
C528	5	H
C529	5	H
C530	4	I
C531	5	I
C532	5	I
C533	5	H
C534	5	H
C535	3	J
C536	3	J
C537	5	H
C541	3	F
C542	2	F
C543	2	G
C544	2	F
C545	2	G
C546	2	F
C547	1	G
C548	1	F
C549	1	F
C550	1	F
C551	2	F
C552	2	E
C553	2	F
C555	2	F
C556	3	E
C557	2	G
C558	2	F
C561	1	J
C562	2	J
C563	2	H
C564	1	I
C565	2	I
C566	1	I
C567	1	H
C568	1	H
C569	2	I
C570	1	I
C571	2	I
C572	1	I
C573	2	I
C574	1	I
C575	2	I
C576	2	I
C577	2	I
C581	3	I
C591	5	I
C592	2	G

Symbol	X	Y
C701	3	C
C702	3	C
C703	3	D
C704	1	C
C705	3	C
C706	3	C
C711	4	B
C712	4	D
C713	4	C
C721	6	D
C722	6	E
C723	6	E
C724	6	D
C725	6	D
C731	8	H
C732	8	I
C733	9	I
C734	9	J
C735	9	I
C736	9	J
C737	9	I
C738	9	J
C745	9	I
C746	9	I
C751	7	F
C752	7	F
C753	7	F
C754	7	F
C755	8	F
C756	9	H
C757	10	G
C775	2	B
C776	1	B
C777	1	B
C781	7	B
C791	10	D
C792	10	I
C793	7	F
C794	2	D
C795	2	D
C796	1	C
C797	2	C
C798	1	C
C799	2	C
CN501	5	I
CN502	3	I
CN503	4	H
CN504	3	H
CN513	7	D
CN514	8	D
CN614	6	D
CN615	5	D
CN616	6	D
CN701	10	I
CN702	8	J
CN703	3	B
CN712	1	C
CN781	6	C
CN791	9	F
D501	4	I
D521	6	I
D522	5	H
D555	2	E
D556	2	F
D581	6	I
D582	6	J
D583	6	J
D584	5	J
D585	5	J
D589	5	I
D701	2	C
D711	4	D

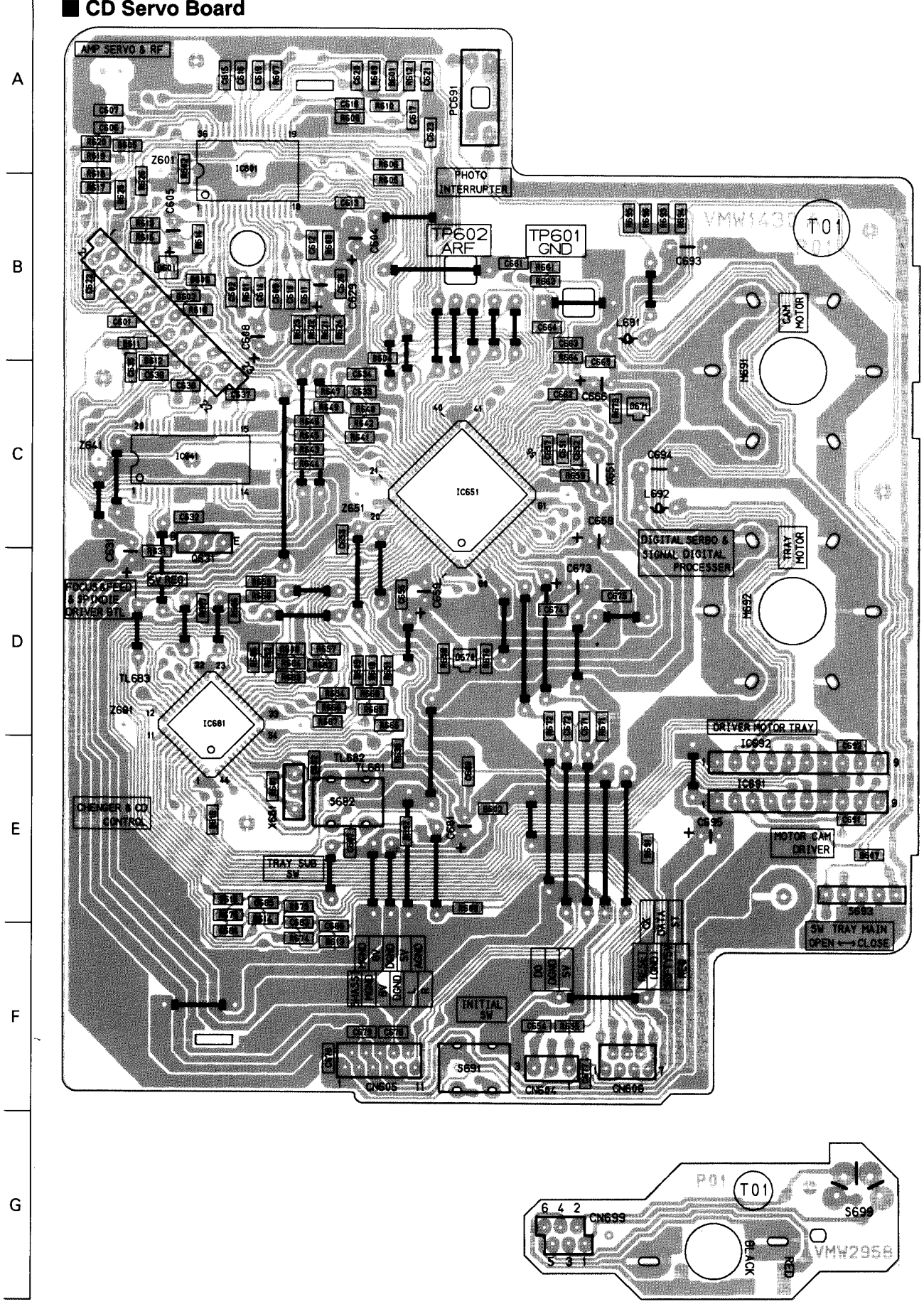
Symbol	X	Y
D712	10	G
D721	4	I
D731	8	H
D732	8	I
D751	7	F
D760	5	C
D761	10	B
D762	7	C
D763	7	C
D764	5	C
D775	1	B
D781	6	C
D782	6	C
D783	7	C
D784	7	C
D785	8	C
D786	8	C
D787	8	C
D788	9	C
D789	8	C
D790	9	C
D791	5	B
D792	5	B
D793	7	B
IC502	6	H
IC541	2	F
IC561	2	I
IC731	8	I
IC732	9	I
IC751	8	F
IC752	7	F
IC775	1	B
K501	5	I
K502	5	I
K503	2	H
K701	5	B
K702	5	B
K703	5	C
K704	5	C
K705	4	C
K706	6	D
K721	10	I
K722	10	I
K723	10	H
K724	10	H
K725	10	H
K726	10	H
K727	10	H
K728	10	G
L521	5	I
L535	3	J
L536	3	J
P781	7	B
Q501	4	I
Q502	4	I
Q521	6	H
Q522	6	H
Q523	5	I
Q524	5	H
Q525	5	H
Q581	5	I
Q582	5	I
Q583	3	H
Q584	3	F
Q585	3	F
Q586	3	F
Q701	3	C
Q711	4	C
Q712	2	B
Q713	4	D
Q715	9	D
Q716	9	D

Symbol	X	Y
Q717	10	D
Q721	3	I
Q722	3	I
Q723	4	I
Q724	3	I
Q731	10	I
Q732	10	J
Q733	10	J
Q781	10	E
Q782	10	E
Q783	10	E
Q784	10	E
Q785	9	E
R501	6	J
R502	5	I
R503	7	I
R504	7	I
R505	6	I
R506	6	I
R507	6	H
R508	7	H
R509	6	H
R510	7	H
R511	7	H
R512	6	H
R513	6	I
R514	7	I
R515	1	H
R517	4	I
R521	6	I
R522	6	I
R523	6	H
R524	6	H
R525	6	H
R526	6	H
R527	5	H
R528	5	I
R529	5	H
R531	5	H
R532	5	H
R535	3	J
R536	3	J
R541	2	G
R542	2	E
R543	2	G
R544	2	E
R551	2	F
R552	2	E
R553	2	F
R555	2	E
R556	3	E
R557	5	G
R558	5	F
R561	2	J
R562	2	J
R563	2	J
R564	3	J
R565	2	H
R566	1	I
R567	2	H
R568	1	J
R569	1	I
R570	2	I
R571	1	I
R572	2	I
R581	6	I
R582	6	I
R583	6	I
R584	5	I
R585	4	G
R587	3	F
R588	3	F

Symbol	X	Y
R589	6	I
R595	2	F
R700	8	B
R702	3	D
R703	8	G
R704	8	G
R705	3	D
R706	8	F
R707	8	H
R708	8	G
R711	4	C
R712	4	C
R713	2	B
R714	4	D
R715	9	D
R716	9	D
R717	9	D
R718	9	D
R719	9	D
R720	9	D
R721	3	J
R724	3	H
R725	4	I
R727	3	I
R728	4	H
R729	3	H
R731	8	H
R732	7	I
R735	9	I
R736	9	J
R737	9	I
R738	9	J
R739	9	I
R740	9	J
R741	9	I
R742	10	I
R743	9	I
R744	9	J
R745	9	I
R746	9	I
R747	10	I
R748	10	I
R749	9	I
R750	9	J
R751	8	F
R752	7	F
R754	9	G
R755	10	I
R756	10	H
R757	10	H
R758	10	I
R761	7	E
R762	7	D
R763	9	E
R764	9	E
R765	7	D
R766	3	H
R767	9	F
R768	9	F
R769	10	F
R770	10	F
R771	7	E
R772	7	E
R773	9	G
R774	9	G
R775	1	B
R776	1	B
R777	9	G
R778	9	G
R779	9	F
R780	9	F
R781	5	C

Symbol	X	Y
R782	6	C
R783	7	C
R784	6	C
R785	8	C
R786	7	C
R787	9	C
R789	9	C
R791	5	A
R792	5	B
R793	7	B
R795	2	D
R796	2	D
R797	2	D
R798	2	D
R799	6	E
R800	6	B
S501	1	I
S781	6	C
S782	6	C
S783	10	C
S784	9	C
S785	7	C
S786	7	C
S787	9	C
S788	10	C
S789	7	C
S790	8	C
S791	8	C
S792	10	B
S793	5	C
S794	7	C
S795	8	C
S796	10	B
S797	5	B
S798	5	B
TH705	3	D
X751	8	F

■ CD Servo Board



— MEMO —

PARTS LIST

<RX-TD7>

* All printed circuit boards and its assemblies are not available as service parts.

The Marks for Designated Areas

J ---- the U.S.A.
C ---- Canada
UB ---- Hong Kong
U ---- Universal Type
UP ---- Korea
US ---- Singapore
UT ---- Taiwan
No marks indicates all areas.

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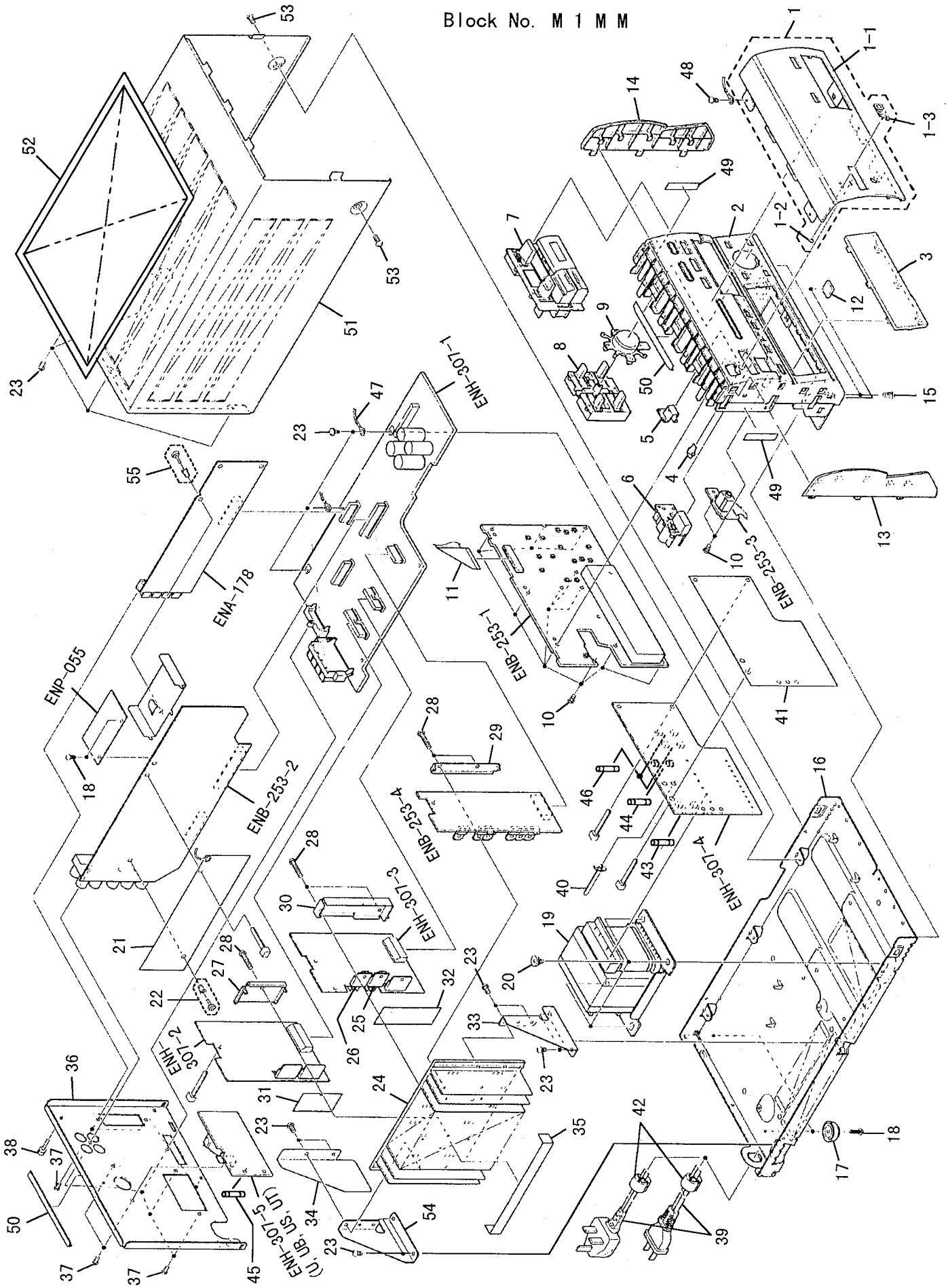
General Exploded View and Parts List



■ Parts List

Block No. M 1 M M

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EFP-RXTD7U(S)	FRONT PANEL ASSY	1		
	1-1	LE20087-003A	FRONT PANEL	1		
	1-2	E60912-003	SPEED NUT	1		
	1-3	E406971-221	JVC MARK	1		
	2	LE10062-001A	FRONT BASE	1		
	3	LE20094-001A	WINDOW SCREEN	1		
	4	LE40119-002A	INDICATOR LENS	1	POWER	
	5	LE40120-001A	REMOTE CONTROL WINDOW	1		
	6	LE30326-001A	POWER BUTTON	1		
	7	LE20089-004A	PUSH BUTTON ASSY	1	SOURCE	
	8	LE20092-001A	PUSH BUTTON	1	SET	
	9	LE20093-001A	PUSH BUTTON	1	CURSOR	
	10	SDSF2608Z	SCREW	13		
	11	VWF1227-25TTB	FLAT WIRE	1		
	12	E75896-001	SPACER	2		
	13	LE20098-001A	SIDE FITTING	1		
	14	LE20099-001A	SIDE FITTING	1		
	15	SDSG3006CC	SCREW	2		
	16	LE10064-003A	CHASSIS BASE	1		
	17	E47227-029	FOOT	2		
	18	SBSG3008Z	TAPPING SCREW	4		
⚠	19	QQT0165-001	POWER TRANSFORMER	1		C J
⚠		QQT0165-003	POWER TRANSFORMER	1		U UB UP US UT
	20	E65389-002	SPECIAL SCREW	4		
	21	LE30475-202A	SHIELD PLATE	1		U UB US UT
	22	E310243-002	PLASTIC RIVET	1		U UB US UT
	23	SBSG3008CC	TAPPING SCREW	15		
	24	LE30333-003A	HEAT SINK	1		
	25	2SC4466LD/Y/	SI.TRANSISTOR	1		
	26	2SA1693LD/Y/	SI.TRANSISTOR	1		
	27	FMKL4007-001	HEAT SINK BRACKET	1		
	28	SBSG3014Z	TAPPING SCREW	5		
	29	E407434-001SM	LEAF SPRING	1		
	30	LE40125-001A	BOTTOM BRACKET	1		
	31	FMPK4003-001	MICA SHEET	1		
	32	LE40124-002A	MICA SHEET	1		
	33	LE30334-001A	HEAT SINK BRACKET	1		
	34	LE40265-201A	PROTECTOR COVER	1		
	35	EX0150010H09S11	FELT SPACER	1		
	36	LE20095-019A	REAR PANEL	1		J
		LE20095-020A	REAR PANEL	1		C
		LE20095-021A	REAR PANEL	1		U UB US UT
		LE20095-022A	REAR PANEL	1		UP
	37	E73273-003	SPECIAL SCREW	9		U UB US UT
	38	E409257-001	EARTH TERMINAL	1		
⚠	39	EMP7000-200	POWER CORD	1		UP
⚠		QMP1400-244	POWER CORD	1		C J
⚠		QMP39E0-200	POWER CORD	1		US
⚠		QMP5530-0085BS	POWER CORD	1		UB
⚠		QMP7520-200	POWER CORD	1		U UT
	40	E307572-001	VINYL TIE	1		
	41	LE30476-201A	PROTECT SHEET	1		
⚠	42	QHS3876-162	CORD STOPPER	1		U UB UP US UT
⚠		QHS3876-163	CORD BUSHING	1		C J

■ Parts List

Block No. M 1 M M

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
⚠	43	QMF0007-2R0J1	FUSE	1	F001 (T2.0A/125V)	C J
⚠	44	QMF51E2-1R0J1	FUSE	1	F002 (T1.0A/250V)	UP
⚠		QMF51E2-2R0	FUSE	1	F002 (T2.0A/250V)	U UB US UT
⚠	45	QMF51E2-1R0J1	FUSE	1	F003 (T1.0A/250V)	U UB US UT
⚠	46	QMF0007-4R0J1	FUSE	2	F101, F102 (T4.0A/125V)	J C
⚠		QMF51E2-4R0	FUSE	2	F101, F102 (T4.0A/250V)	U UB UP US UT
	47	EWT025-006	TERMINAL WIRE	1		
	48	SDSG3008Z	SCREW	1		
	49	LE30001-016A	SPACER	2		
	50	LE30001-017A	SPACER	2		
	51	LE20097-001A (S)	METAL COVER	1		C J
		LE20097-003A (S)	METAL COVER	1		U UB UP US UT
	52	LE30336-001A	PROTECT SHEET	1		U UB UP US UT
	53	SDSG3006N	TAPPING SCREW	2		
	54	LE30335-001A	HEAT SINK BRACKET	1		
	55	E48729-010	PLASTIC RIVET	1		
	-	E309551-006	R. LABEL (M' SIA)	1		U
		LE30003-021A	UT LABEL	1		UT
		LE40210-001A	CAUTION LABEL	1		UT

■ Electrical Parts List (ENH-307M)

⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC301	TDA7294	I.C(M)	
	IC302	BA15218N	I.C(MONO-ANALOG)	
	IC351	TDA7294	I.C(M)	
	IC352	TDA7294	I.C(M)	
		DIODES		
⚠	D201	1N5402M-20	DIODE	
⚠	D202	1N5402M-20	DIODE	
⚠	D203	1N5402M-20	DIODE	
⚠	D204	1N5402M-20	DIODE	
⚠	D205	30DL2FC	SI.DIODE	
⚠	D206	30DL2FC	SI.DIODE	
⚠	D207	30DL2FC	SI.DIODE	
⚠	D208	30DL2FC	SI.DIODE	
	D209	1SR35-100	SI.DIODE	
	D210	1SR35-100	SI.DIODE	
	D211	1SR35-100	SI.DIODE	
	D212	MTZ33JC	ZENER DIODE	
	D213	MTZ5.6JC	ZENER DIODE	
	D214	1SS133	SI.DIODE	
	D215	MTZ5.1JB	ZENER DIODE	
	D216	1SS133	SI.DIODE	
	D217	1SS133	SI.DIODE	
	D241	1SS133	SI.DIODE	
	D242	1SS133	SI.DIODE	
	D281	1SS133	SI.DIODE	
	D282	1SS133	SI.DIODE	
	D283	1SS133	SI.DIODE	
	D284	1SS133	SI.DIODE	
	D319	1SS133	SI.DIODE	
	D371	1SS133	SI.DIODE	
	D372	1SS133	SI.DIODE	
	D381	1SS133	SI.DIODE	
⚠	D1009	30DL2FC	SI.DIODE	
⚠	D1010	30DL2FC	SI.DIODE	
	D1011	1SS133	SI.DIODE	
	D1013	1SS133	SI.DIODE	
	D1015	1SS133	SI.DIODE	
	D1016	1SS133	SI.DIODE	
	D1017	MTZ3.9JB	ZENER DIODE	
	D1018	MTZ3.9JB	ZENER DIODE	
	D1019	1SS133	SI.DIODE	
	D1020	1SS133	SI.DIODE	
	D1021	1SS133	SI.DIODE	
	D1022	1SS133	SI.DIODE	
		TRANSISTORS		
	Q201	2SA934(Q,R)	SI.TRANSISTOR	
	Q202	KRC107M-T	DIGITAL TRANSISTOR	
	Q203	KRC107M-T	DIGITAL TRANSISTOR	
	Q204	KRC107M-T	DIGITAL TRANSISTOR	
	Q221	2SD2144S(VW)	SI.TRANSISTOR	
	Q222	2SD2144S(VW)	SI.TRANSISTOR	
	Q223	KRA111M-T	DIGITAL TRANSISTOR	
	Q241	KRA107M-T	DIGITAL TRANSISTOR	
	Q242	2SC1775AV(F1)	SI.TRANSISTOR	
	Q281	2SC1740S(R,S)	SI.TRANSISTOR	
	Q282	2SC1740S(R,S)	SI.TRANSISTOR	
	Q283	2SC1740S(R,S)	SI.TRANSISTOR	
	Q284	KRA104M-T	DIGITAL TRANSISTOR	
	Q285	2SD2144S(VW)	SI.TRANSISTOR	
	Q286	2SD2144S(VW)	SI.TRANSISTOR	
	Q301	2SA1038(R,S)	SI.TRANSISTOR	
	Q371	2SA1038(R,S)	SI.TRANSISTOR	
	Q372	2SA1038(R,S)	SI.TRANSISTOR	
	Q381	2SC2389(S,E)	SI.TRANSISTOR	
	Q382	2SA1038(R,S)	SI.TRANSISTOR	
	Q383	2SC1740S(R,S)	SI.TRANSISTOR	
	Q1001	2SC1685	SI.TRANSISTOR	
	Q1002	2SA933S(RS)	SI.TRANSISTOR	

⚠	Item	Parts Number	Description	Area
	Q1003	2SC1685	SI.TRANSISTOR	
	Q1004	2SA733A(P,K)	SI.TRANSISTOR	
	Q1005	2SA965(Y)	SI.TRANSISTOR	
	Q1006	2SC2235(O,Y)	SI.TRANSISTOR	
		CAPACITORS		
	C201	QFV82AJ-104	0.1MF 100V THIN FILM CAP.	
	C202	QFV72AJ-103ZM	0.01MF 100V THIN FILM CAP.	
	C203	QFV72AJ-103ZM	0.01MF 100V THIN FILM CAP.	
	C204	QFV81HJ-1[illegible]	0.1MF 50V THIN FILM CAP.	
	C205	QFV81HJ-103	0.01MF 50V THIN FILM CAP.	
	C206	QFV81HJ-103	0.01MF 50V THIN FILM CAP.	
	C207	QETB1JM-107	100MF 63V AL E.CAP.	
	C208	QETB1JM-476	47MF 63V AL E.CAP.	
	C209	QETB1HM-226E	22MF 50V E.CAP.	
	C210	QCVB1CM-103Y	0.01MF 16V CER.CAP.	
	C211	QETB1HM-226E	22MF 50V E.CAP.	
	C212	QETB1HM-475E	4.7MF 50V E.CAP.	
	C213	QETM1HM-228	2200MF 50V E.CAP.	C J
		QETM1HM-338	3300MF 50V E.CAP.	U UB UP US UT
	C214	QETM1HM-228	2200MF 50V E.CAP.	C J
		QETM1HM-338	3300MF 50V E.CAP.	U UB UP US UT
	C215	QETB1VM-338	3300MF 35V AL E.CAP.	C J
		QETB1VM-478N	4700MF 35V AL E.CAP.	U UB UP US UT
	C216	QETB1VM-338	3300MF 35V AL E.CAP.	C J
		QETB1VM-478N	4700MF 35V AL E.CAP.	U UB UP US UT
	C217	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C218	QETB1HM-105	1MF 50V AL E.CAP.	
	C222	QCZ0202-155	1.5MF 25V CER.RES.	
	C231	QETB1CM-476	47MF 16V AL E.CAP.	
	C232	QETB1CM-476	47MF 16V AL E.CAP.	
	C234	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C243	QFLB1HJ-473	0.047MF 50V MYLAR CAP.	
	C244	QFLB1HJ-473	0.047MF 50V MYLAR CAP.	
	C246	QFLB1HJ-473	0.047MF 50V MYLAR CAP.	
	C281	QETB1HM-105	1MF 50V AL E.CAP.	
	C282	QETB1HM-105	1MF 50V AL E.CAP.	
	C291	QETB1CM-476	47MF 16V AL E.CAP.	
	C300	QFV81HJ-103	0.01MF 50V THIN FILM CAP.	
	C301	EETB1HM-105E	1MF 50V E.CAP.	
	C303	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C305	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C307	QETB1EM-476	47MF 25V AL E.CAP.	
	C309	QCSB1HJ-100Y	10PF 50V CER.CAP.	
	C311	QETB1HM-226E	22MF 50V E.CAP.	
	C319	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	Except J
		QFLB1HJ-473	0.047MF 50V MYLAR CAP.	J
	C320	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	Except J
	C350	QFV81HJ-103	0.01MF 50V THIN FILM CAP.	
	C351	EETB1HM-105E	1MF 50V E.CAP.	
	C352	EETB1HM-105E	1MF 50V E.CAP.	
	C353	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C354	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C355	QFV82AJ-104	0.1MF 100V THIN FILM CAP.	
	C359	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C360	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C361	QETB1HM-226E	22MF 50V E.CAP.	
	C362	QETB1HM-226E	22MF 50V E.CAP.	
	C363	QETB1EM-476	47MF 25V AL E.CAP.	
	C364	QETB1EM-476	47MF 25V AL E.CAP.	
	C365	QCSB1HJ-100Y	10PF 50V CER.CAP.	
	C366	QCSB1HJ-100Y	10PF 50V CER.CAP.	
	C367	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	Except J
		QFLB1HJ-473	0.047MF 50V MYLAR CAP.	J
	C368	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	Except J
		QFLB1HJ-473	0.047MF 50V MYLAR CAP.	J
	C369	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	Except J
	C370	QFLB1HJ-104	0.1MF 50V MYLAR CAP.	Except J
	C381	QETB1EM-106	10MF 25V AL E.CAP.	
	C382	QETB1CM-476	47MF 16V AL E.CAP.	

■ Electrical Parts List (ENH-307M)

⚠	Item	Parts Number	Description	Area
	C1005	QCXB1CM-272Y	2700PF 16V CER. CAP.	
	C1006	QCXB1CM-272Y	2700PF 16V CER. CAP.	
	C1007	QCXB1CM-472Y	4700PF 16V CER. CAP.	
	C1008	QCXB1CM-472Y	4700PF 16V CER. CAP.	
	C1009	QFV81HJ-105	1MF 50V THIN FILM CAP.	
	C1010	QFV81HJ-105	1MF 50V THIN FILM CAP.	
	C1011	QDGB1HK-102Y	1000PF 50V C. CAPA. I. M	
	C1012	QDGB1HK-102Y	1000PF 50V C. CAPA. I. M	
	C1013	QFLB1HJ-104	0. 1MF 50V MYLAR CAP.	
	C1014	QFLB1HJ-104	0. 1MF 50V MYLAR CAP.	
	C1017	QDGB1HK-102Y	1000PF 50V C. CAPA. I. M	
	C1018	QDGB1HK-102Y	1000PF 50V C. CAPA. I. M	
		RESISTORS		
⚠	R001	QRZ9044-335	3. 3M COMPOSITION	C J
	R002	QRD161J-104	100K 1/6W CARBON RES.	U UB US UT
	R003	QRD161J-104	100K 1/6W CARBON RES.	U UB US UT
	R004	QRD161J-104	100K 1/6W CARBON RES.	U UB US UT
⚠	R202	QRD14CJ-4R7SX	4. 7 1/4W UNF. CARBON R	J
	R203	QRD161J-362	3. 6K 1/6W CARBON RES.	
	R204	QRD161J-104	100K 1/6W CARBON RES.	
⚠	R205	QRD14CJ-1R0SX	1 1/4W UNF. CARBON R	
⚠	R206	QRD14CJ-1R0SX	1 1/4W UNF. CARBON R	
	R207	QRD161J-103	10K 1/6W CARBON RES.	
	R208	QRD161J-103	10K 1/6W CARBON RES.	
	R209	QRD161J-102	1K 1/6W CARBON RES.	
	R210	QRD161J-104	100K 1/6W CARBON RES.	
	R212	QRD161J-104	100K 1/6W CARBON RES.	
⚠	R221	QRD14CJ-271S	270 1/4W UNF. CARBON R	
⚠	R222	QRD14CJ-271S	270 1/4W UNF. CARBON R	
⚠	R223	QRD14CJ-681SX	680 1/4W UNF. CARBON R	
⚠	R224	QRD14CJ-681SX	680 1/4W UNF. CARBON R	
	R225	QRD161J-472	4. 7K 1/6W CARBON RES.	
	R226	QRD161J-472	4. 7K 1/6W CARBON RES.	
	R227	QRD161J-0R0	0 1/6W CARBON RES.	
	R231	QRD161J-104	100K 1/6W CARBON RES.	
	R232	QRD161J-104	100K 1/6W CARBON RES.	
	R233	QRD161J-104	100K 1/6W CARBON RES.	
	R240	QRD161J-473	47K 1/6W CARBON RES.	
	R241	QRD167J-152	1. 5K 1/6W CARBON RES.	
	R242	QRD161J-473	47K 1/6W CARBON RES.	
⚠	R244	QRG01DJ-561X	560 1W OXIDE METAL	
⚠	R245	QRG01DJ-561X	560 1W OXIDE METAL	
⚠	R247	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
⚠	R248	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
⚠	R249	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
	R281	QRD161J-473	47K 1/6W CARBON RES.	
	R282	QRD161J-473	47K 1/6W CARBON RES.	
	R283	QRD161J-243	24K 1/6W CARBON RES.	
	R284	QRD161J-243	24K 1/6W CARBON RES.	
	R285	QRD167J-822	8. 2K 1/6W CARBON RES.	
	R286	QRD167J-822	8. 2K 1/6W CARBON RES.	
	R287	QRD161J-242	2. 4K 1/6W CARBON RES.	
	R288	QRD161J-683	68K 1/6W CARBON RES.	
	R289	QRD161J-392	3. 9K 1/6W CARBON RES.	
	R291	QRD161J-222	2. 2K 1/6W CARBON RES.	
	R292	QRD161J-222	2. 2K 1/6W CARBON RES.	
	R293	QRD161J-222	2. 2K 1/6W CARBON RES.	
	R294	QRD161J-222	2. 2K 1/6W CARBON RES.	
	R295	QRD161J-103	10K 1/6W CARBON RES.	
	R296	QRD161J-103	10K 1/6W CARBON RES.	
	R297	QRD161J-473	47K 1/6W CARBON RES.	
	R298	QRD161J-473	47K 1/6W CARBON RES.	
	R299	QRD161J-331	330 1/6W CARBON RES.	
	R301	QRD161J-102	1K 1/6W CARBON RES.	
⚠	R302	QRD14CJ-4R7SX	4. 7 1/4W UNF. CARBON R	
	R303	QRD161J-753	75K 1/6W CARBON RES.	
⚠	R305	QRD14CJ-102SX	1K 1/4W UNF. CARBON R	
	R307	QRD161J-753	75K 1/6W CARBON RES.	
⚠	R309	QRX014J-R22	0. 22 1W METAL FILM R	

⚠	Item	Parts Number	Description	Area
⚠	R311	QRX014J-R22	0. 22 1W METAL FILM R	
	R312	QRD161J-222	2. 2K 1/6W CARBON RES.	U UB UP US UT
⚠	R313	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
⚠	R315	QRD14CJ-2R2SX	2. 2 1/4W UNF. CARBON R	
	R317	QRD161J-122	1. 2K 1/6W CARBON RES.	
	R319	QRD167J-223	22K 1/6W CARBON RES.	
	R320	QRD161J-103	10K 1/6W CARBON RES.	
⚠	R321	QRD14CJ-4R7SX	4. 7 1/4W UNF. CARBON R	J
⚠		QRZ0077-4R7	4. 7 1/4W FUSE RESISTO	Except J
⚠	R322	QRD14CJ-4R7SX	4. 7 1/4W UNF. CARBON R	J
⚠		QRZ0077-4R7	4. 7 1/4W FUSE RESISTO	Except J
	R323	QRD161J-473	47K 1/6W CARBON RES.	
	R351	QRD161J-102	1K 1/6W CARBON RES.	
	R352	QRD161J-102	1K 1/6W CARBON RES.	
	R353	QRD161J-393	39K 1/6W CARBON RES.	
	R354	QRD161J-393	39K 1/6W CARBON RES.	
⚠	R355	QRX014J-R22	0. 22 1W METAL FILM R	
⚠	R356	QRX014J-R22	0. 22 1W METAL FILM R	
⚠	R357	QRX014J-R22	0. 22 1W METAL FILM R	
⚠	R358	QRX014J-R22	0. 22 1W METAL FILM R	
⚠	R359	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
⚠	R360	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
⚠	R363	QRD14CJ-821SX	820 1/4W CARBON RES.	
⚠	R364	QRD14CJ-821SX	820 1/4W CARBON RES.	
	R365	QRD161J-393	39K 1/6W CARBON RES.	
	R366	QRD161J-393	39K 1/6W CARBON RES.	
⚠	R367	QRD14CJ-2R2SX	2. 2 1/4W UNF. CARBON R	
⚠	R368	QRD14CJ-2R2SX	2. 2 1/4W UNF. CARBON R	
	R371	QRD161J-473	47K 1/6W CARBON RES.	
	R372	QRD161J-473	47K 1/6W CARBON RES.	
	R373	QRD161J-122	1. 2K 1/6W CARBON RES.	
	R374	QRD161J-122	1. 2K 1/6W CARBON RES.	
	R375	QRD167J-223	22K 1/6W CARBON RES.	
	R376	QRD167J-223	22K 1/6W CARBON RES.	
	R377	QRD161J-103	10K 1/6W CARBON RES.	
	R378	QRD161J-103	10K 1/6W CARBON RES.	
	R379	QRD161J-104	100K 1/6W CARBON RES.	
	R380	QRD161J-823	82K 1/6W CARBON RES.	
	R381	QRD161J-103	10K 1/6W CARBON RES.	
	R382	QRD161J-103	10K 1/6W CARBON RES.	
	R383	QRD161J-104	100K 1/6W CARBON RES.	
	R384	QRD161J-104	100K 1/6W CARBON RES.	
	R1001	QRD167J-223	22K 1/6W CARBON RES.	
	R1002	QRD167J-223	22K 1/6W CARBON RES.	
	R1003	QRD167J-223	22K 1/6W CARBON RES.	
	R1004	QRD167J-223	22K 1/6W CARBON RES.	
	R1005	QRD161J-221	220 1/6W CARBON RES.	
	R1006	QRD161J-221	220 1/6W CARBON RES.	
	R1007	QRD161J-222	2. 2K 1/6W CARBON RES.	
	R1008	QRD161J-222	2. 2K 1/6W CARBON RES.	
	R1009	QRD161J-222	2. 2K 1/6W CARBON RES.	
	R1010	QRD161J-222	2. 2K 1/6W CARBON RES.	
	R1011	QRD167J-223	22K 1/6W CARBON RES.	
	R1012	QRD167J-223	22K 1/6W CARBON RES.	
	R1013	QRD167J-682	6. 8K 1/6W CARBON RES.	
	R1014	QRD167J-682	6. 8K 1/6W CARBON RES.	
⚠	R1015	QRD14CJ-681SX	680 1/4W UNF. CARBON R	
⚠	R1016	QRD14CJ-681SX	680 1/4W UNF. CARBON R	
⚠	R1017	QRD14CJ-821SX	820 1/4W CARBON RES.	
⚠	R1018	QRD14CJ-821SX	820 1/4W CARBON RES.	
	R1019	QRD161J-821	820 1/6W CARBON RES.	
	R1020	QRD161J-821	820 1/6W CARBON RES.	
	R1021	QRD161J-182	1. 8K 1/6W CARBON RES.	
	R1022	QRD161J-182	1. 8K 1/6W CARBON RES.	
⚠	R1027	QRD14CJ-101S	100 1/4W UNF. CARBON R	
		OTHERS		
		EMW10706-004	PRINTED BOARD	
	J201	QNB0034-001	SPEAKER TERMINAL	
	L204	EQL4004-2R2	INDUCTOR	

■ Electrical Parts List (ENH-307M)

⚠	Item	Parts Number	Description	Area
	L301	EQL0011-R45J1	INDUCTOR	
	L351	EQL0011-R45J1	INDUCTOR	
	L352	EQL0011-R45J1	INDUCTOR	
	S001	QSW0524-001	LEVER SWITCH	U UB US UT
	CL001	E75803-002	CAUTION LABEL	J
		E75804-002	CAUTION LABEL	C
	CN001	EMV7127-017	CONNECT TERMINAL	
	CN101	EMV7163-012	CONNECT TERMINAL	
	CN202	EMV7145-003Z	SOCKET ASSY	
	CN261	EMV7163-009	CONNECT TERMINAL	
	CN302	EMV5163-010R	CONNECT TERMINAL	
	CN311	EMV7163-013	CONNECT TERMINAL	
	CN312	EMV7163-010	CONNECT TERMINAL	
	CN351	EMV5163-013R	CONNECT TERMINAL	
	CN411	EMV7163-016	CONNECT TERMINAL	
	CN412	EMV7163-020	CONNECT TERMINAL	
	CN811	VMC0163-027	CONNECT TERMINAL	
	EP201	EMZ4002-002Z	EARTH PLATE	
	EP202	EMZ4002-002Z	EARTH PLATE	
	FL001	E61380-011	FUSE LABEL	C J
	FL002	E61380-036	FUSE LABEL	UP
	FL101	E61380-010	FUSE LABEL	C J
		E61380-040	FUSE LABEL	UP
	FL102	E61380-010	FUSE LABEL	C J
		E61380-040	FUSE LABEL	UP
	FT001	EMG7331-003Z	FUSE CLIP	C J
	FT002	EMG7331-003Z	FUSE CLIP	C J
	FT003	EMG7331-003Z	FUSE CLIP	U UB UP US UT
	FT004	EMG7331-003Z	FUSE CLIP	U UB UP US UT
	FT005	EMG7331-003Z	FUSE CLIP	U UB US UT
	FT006	EMG7331-003Z	FUSE CLIP	U UB US UT
	FT101	EMG7331-003Z	FUSE CLIP	
	FT102	EMG7331-003Z	FUSE CLIP	
	FT103	EMG7331-003Z	FUSE CLIP	
	FT104	EMG7331-003Z	FUSE CLIP	
	FW201	EWR38D-20SS	FLAT WIRE	
	FW203	EWR37D-25SS	FLAT WIRE	
	FW204	EWR33D-16SS	CORD	
	JT891	EMV7145-003Z	SOCKET ASSY	
	JT892	EMV7145-003Z	SOCKET ASSY	
	PW001	EWT015-025	TERMINAL WIRE	
	PW003	QWE884-32RR	VINYL WIRE	U UB US UT
	PW004	QWE883-36RR	VINYL WIRE	U UB US UT
	PW005	QWE882-32RR	VINYL WIRE	U UB US UT
	PW006	QWE881-36RR	VINYL WIRE	U UB US UT
	PW008	QWE886-36RR	VINYL WIRE	U UB US UT
	PW009	QWE888-36RR	VINYL WIRE	U UB US UT
	PW010	QWE880-08RR	VINYL WIRE	UP
	RY241	ESK7D24-2120	RELAY	
	RY242	ESK7D24-2120	RELAY	
	TB001	EMZ4001-002Z	TAB	
	TB002	EMZ4001-002Z	TAB	
	TH202	QAD0095-4R7Z	POSITIVE THERMISTOR	Except J

■ Electrical Parts List (ENB-253M)

⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC401	HD404019RC87FS	I.C(MICRO-COMPUTER)	
	IC402	TDA7439	I.C(M)	
	IC403	TDA7439	I.C(M)	
	IC404	LA2650	I.C(MONO-ANALOG)	
	IC405	BA15218N	I.C(MONO-ANALOG)	
	IC406	BA15218N	I.C(MONO-ANALOG)	
	IC801	MN173222JAAY	I.C(MICRO-COMPUTER)	
	IC802	GP1U281X	INFRARED DETECT UNIT	
		DIODES		
	D251	MTZ11JC	ZENER DIODE	
	D252	MTZ5.1JB	ZENER DIODE	
	D253	MTZ13JC	ZENER DIODE	
	D254	MTZ13JC	ZENER DIODE	
	D255	MTZ13JC	ZENER DIODE	
	D405	MTZ9.1JC	ZENER DIODE	
	D406	1SS133	SI.DIODE	
	D407	1SR35-100	SI.DIODE	
	D412	1SS133	SI.DIODE	
	D413	1SS133	SI.DIODE	
	D416	1SS133	SI.DIODE	
	D495	MTZ5.6JC	ZENER DIODE	
	D800	1SS133	SI.DIODE	
	D802	1SR35-100	SI.DIODE	
	D803	1SS133	SI.DIODE	
	D805	1SS133	SI.DIODE	U UB UP US UT
	D806	1SS133	SI.DIODE	C J
	D809	1SS133	SI.DIODE	
	D810	SLR-342DCA47	L.E.D.	
	D811	SLR-342DCA47	L.E.D.	
	D812	SLR-342DCA47	L.E.D.	
	D813	SLR-342DCA47	L.E.D.	
	D814	SLR-342DCA47	L.E.D.	
	D815	SLR-342DCA47	L.E.D.	
	D816	SLR-342DCA47	L.E.D.	
	D817	SLR-342DCA47	L.E.D.	
	D818	SLR-342VC3F	L.E.D.	
	D819	1SS133	SI.DIODE	
	D820	1SS133	SI.DIODE	
	D821	1SS133	SI.DIODE	
	D822	1SS133	SI.DIODE	
		TRANSISTOR		
	Q251	2SD2061(F,G)	SI.TRANSISTOR	
	Q252	2SD2061(F,G)	SI.TRANSISTOR	
	Q253	2SC945A	SI.TRANSISTOR	
	Q254	2SC945A	SI.TRANSISTOR	
	Q255	2SD2061(F,G)	SI.TRANSISTOR	
	Q256	2SD2061(F,G)	SI.TRANSISTOR	
	Q257	2SC1740S(R,S)	SI.TRANSISTOR	
	Q259	2SD2061(F,G)	SI.TRANSISTOR	
	Q261	2SC1740S(R,S)	SI.TRANSISTOR	
	Q262	KRC104M-T	DIGITAL TRANSISTOR	
	Q263	DTA114ES	DIGITAL TRANSISTOR	
	Q264	KRA104M-T	DIGITAL TRANSISTOR	
	Q265	DTC144ES	DIGITAL TRANSISTOR	
	Q266	2SB1565(E,F)	SI.TRANSISTOR	
	Q401	2SD2144S(VW)	SI.TRANSISTOR	
	Q402	2SD2144S(VW)	SI.TRANSISTOR	
	Q403	KRA104M-T	DIGITAL TRANSISTOR	
	Q404	KRA107M-T	DIGITAL TRANSISTOR	
	Q405	2SD2144S(VW)	SI.TRANSISTOR	
	Q406	2SD2144S(VW)	SI.TRANSISTOR	
	Q407	2SD2144S(VW)	SI.TRANSISTOR	
	Q408	2SD2144S(VW)	SI.TRANSISTOR	
	Q409	KRC104M-T	DIGITAL TRANSISTOR	
	Q410	KRA104M-T	DIGITAL TRANSISTOR	
	Q411	KRA104M-T	DIGITAL TRANSISTOR	
	Q495	2SD400MP(E,F)	SI.TRANSISTOR	
	Q801	KRC102M-T	DIGITAL TRANSISTOR	

⚠	Item	Parts Number	Description	Area
	Q802	KRC102M-T	DIGITAL TRANSISTOR	
	Q803	KRC102M-T	DIGITAL TRANSISTOR	
	Q804	KRC102M-T	DIGITAL TRANSISTOR	
	Q805	KRC111M-T	SI.TRANSISTOR	
	Q806	KRC111M-T	SI.TRANSISTOR	
	Q807	KRC111M-T	SI.TRANSISTOR	
		CAPACITORS		
	C252	QETB1CM-226	22MF 16V E.CAP.	
	C253	QCVB1CM-103Y	0.01MF 16V CER.CAP.	
	C254	QETB1CM-226	22MF 16V E.CAP.	
	C256	QETB1CM-476	47MF 16V AL E.CAP.	
	C257	QCVB1CM-103Y	0.01MF 16V CER.CAP.	
	C258	QETB1EM-106	10MF 25V AL E.CAP.	
	C259	QETB1CM-226	22MF 16V E.CAP.	
	C260	QCVB1CM-103Y	0.01MF 16V CER.CAP.	
	C261	QETB1EM-106	10MF 25V AL E.CAP.	
	C262	QETB1CM-476	47MF 16V AL E.CAP.	
	C263	QCVB1CM-103Y	0.01MF 16V CER.CAP.	
	C264	QETB1EM-106	10MF 25V AL E.CAP.	
	C265	QETB1CM-226	22MF 16V E.CAP.	
	C401	QCFB1HZ-104Y	0.1MF 50V CER.CAP.	U UB UP US UT
		QCHB1EZ-223	0.022MF 25V CER.CAP.	C J
	C411	QFLB1HJ-272	2700PF 50V MYLAR CAP.	
	C412	QFLB1HJ-272	2700PF 50V MYLAR CAP.	
	C413	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C414	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C415	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C416	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C417	QFV81HJ-224	0.22MF 50V THIN FILM CA	
	C418	QFV81HJ-224	0.22MF 50V THIN FILM CA	
	C419	QFLB1HJ-563	0.056MF 50V MYLAR CAP.	
	C420	QFLB1HJ-563	0.056MF 50V MYLAR CAP.	
	C421	QETB1EM-106	10MF 25V AL E.CAP.	
	C422	QETB1AM-477	470MF 10V E.CAP.	
	C423	QETB1EM-106	10MF 25V AL E.CAP.	
	C424	QETB1EM-106	10MF 25V AL E.CAP.	
	C425	QETB1EM-106	10MF 25V AL E.CAP.	
	C426	QETB1EM-106	10MF 25V AL E.CAP.	
	C427	QETB1EM-106	10MF 25V AL E.CAP.	
	C428	QETB1EM-106	10MF 25V AL E.CAP.	
	C429	QETB1EM-106	10MF 25V AL E.CAP.	
	C430	QETB1EM-106	10MF 25V AL E.CAP.	
	C431	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C432	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C433	QETB1EM-106	10MF 25V AL E.CAP.	
	C434	QETB1EM-106	10MF 25V AL E.CAP.	
	C435	QETB1EM-106	10MF 25V AL E.CAP.	
	C436	QETB1EM-106	10MF 25V AL E.CAP.	
	C437	QETB1EM-106	10MF 25V AL E.CAP.	
	C438	QETB1EM-106	10MF 25V AL E.CAP.	
	C439	QETB1EM-106	10MF 25V AL E.CAP.	
	C440	QETB1EM-106	10MF 25V AL E.CAP.	
	C441	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C442	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C443	QETB1EM-106	10MF 25V AL E.CAP.	
	C444	QETB1EM-106	10MF 25V AL E.CAP.	
	C445	QETB1EM-106	10MF 25V AL E.CAP.	
	C447	QETB1EM-106	10MF 25V AL E.CAP.	
	C448	QETB1EM-106	10MF 25V AL E.CAP.	
	C449	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C450	QETB1HM-475E	4.7MF 50V E.CAP.	
	C451	QETB1HM-474	0.47MF 50V E.CAP.	
	C452	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C453	QETB1HM-475E	4.7MF 50V E.CAP.	
	C454	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C455	QFLB1HJ-393	0.039MF 50V MYLAR CAP.	
	C456	QETB1EM-476	47MF 25V AL E.CAP.	
	C457	QETB1EM-106	10MF 25V AL E.CAP.	
	C458	QETB1EM-106	10MF 25V AL E.CAP.	

■ Electrical Parts List (ENB-253M)

⚠	Item	Parts Number	Description	Area
	C459	QETB1AM-477	470MF 10V E.CAP.	
	C460	QETB1HM-105	1MF 50V AL E.CAP.	
	C461	QCZ0202-155	1.5MF 25V CER.RES.	
	C462	QCVB1CM-103Y	0.01MF 16V CER.CAP.	
	C463	QCFB1HZ-104Y	0.1MF 50V CER.CAP.	
	C464	QCVB1CM-103Y	0.01MF 16V CER.CAP.	
	C465	QETB1CM-476	47MF 16V AL E.CAP.	
	C466	QETB1CM-476	47MF 16V AL E.CAP.	
	C471	QETB1HM-105	1MF 50V AL E.CAP.	
	C472	QETB1HM-105	1MF 50V AL E.CAP.	
	C477	QETB1HM-105	1MF 50V AL E.CAP.	
	C478	QETB1HM-105	1MF 50V AL E.CAP.	
	C483	QETB1HM-475E	4.7MF 50V E.CAP.	
	C484	QEAD0HZ-479A	47000MF E.CAP.	
	C485	QETB0JM-107	100MF 6.3V AL E.CAP.	
	C490	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C495	QCVB1CM-103Y	0.01MF 16V CER.CAP.	
	C497	QETB1EM-106	10MF 25V AL E.CAP.	
	C499	QCFB1HZ-104Y	0.1MF 50V CER.CAP.	
	C800	QCT25CH-220Z	22PF 50V CER.CAP.	
	C801	QCT25CH-220Z	22PF 50V CER.CAP.	
	C802	QCVB1CM-103Y	0.01MF 16V CER.CAP.	
	C803	QER50JM-107	100MF 6.3V AL E.CAP.	
	C804	QCFB1HZ-104Y	0.1MF 50V CER.CAP.	
	C805	QEAD0HZ-479A	47000MF E.CAP.	
	C807	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C808	QETB0JM-107	100MF 6.3V AL E.CAP.	
	C809	QER61HM-105Z	1MF 50V AL E.CAP.	
	C810	QER61HM-105Z	1MF 50V AL E.CAP.	
	C811	QCZ0202-155	1.5MF 25V CER.RES.	
	C812	QCBB1HK-151	150PF 50V CER.CAP.	
	C813	QCBB1HK-151	150PF 50V CER.CAP.	
	C814	QCZ0202-155	1.5MF 25V CER.RES.	
	C891	QCBB1HK-471Y	470PF 50V CER.CAP.	
	C892	QCBB1HK-471Y	470PF 50V CER.CAP.	
	C893	QCFB1HZ-104Y	0.1MF 50V CER.CAP.	
		RESISTORS		
	R251	QRD14CJ-4R7SX	4.7 1/4W UNF.CARBON R	C J
	R252	QRD14CJ-4R7SX	4.7 1/4W UNF.CARBON R	C J
	R253	QRD161J-221	220 1/6W CARBON RES.	
	R254	QRD161J-221	220 1/6W CARBON RES.	
	R255	QRD161J-331	330 1/6W CARBON RES.	
⚠	R256	QRD14CJ-122SX	1.2K 1/4W UNF.CARBON R	
	R258	QRD161J-122	1.2K 1/6W CARBON RES.	
	R259	QRD161J-122	1.2K 1/6W CARBON RES.	
	R260	QRD161J-331	330 1/6W CARBON RES.	
	R261	QRD161J-331	330 1/6W CARBON RES.	
	R262	QRD12CJ-120SX	12 1/2W UNF.CARBON R	C J
	R263	QRD12CJ-120SX	12 1/2W UNF.CARBON R	C J
	R264	QRD167J-152	1.5K 1/6W CARBON RES.	
	R265	QRD161J-331	330 1/6W CARBON RES.	
	R266	QRD167J-562	5.6K 1/6W CARBON RES.	
	R267	QRD161J-221	220 1/6W CARBON RES.	
	R268	QRD161J-221	220 1/6W CARBON RES.	
	R270	QRD161J-122	1.2K 1/6W CARBON RES.	
⚠	R272	QRD12CJ-150S	15 1/2W UNF.CARBON R	C J
⚠	R273	QRD12CJ-150S	15 1/2W UNF.CARBON R	C J
	R276	QRD167J-562	5.6K 1/6W CARBON RES.	
	R277	QRD167J-152	1.5K 1/6W CARBON RES.	
⚠	R278	QRD14CJ-100SX	10 1/4W UNF.CARBON R	J
⚠		QRZ0077-100	10 1/4W FUSIBLE RES.	Except J
	R279	QRD167J-562	5.6K 1/6W CARBON RES.	
	R280	QRD167J-272	2.7K 1/6W CARBON RES.	
	R401	QRD161J-221	220 1/6W CARBON RES.	
	R402	QRD161J-221	220 1/6W CARBON RES.	
	R403	QRD161J-913	91K 1/6W CARBON RES.	
	R404	QRD161J-913	91K 1/6W CARBON RES.	
	R407	QRD167J-562	5.6K 1/6W CARBON RES.	
	R408	QRD167J-562	5.6K 1/6W CARBON RES.	

⚠	Item	Parts Number	Description	Area
	R409	QRD161J-103	10K 1/6W CARBON RES.	
	R410	QRD161J-103	10K 1/6W CARBON RES.	
	R413	QRD167J-272	2.7K 1/6W CARBON RES.	
	R414	QRD167J-272	2.7K 1/6W CARBON RES.	
	R415	QRD161J-222	2.2K 1/6W CARBON RES.	
	R416	QRD161J-222	2.2K 1/6W CARBON RES.	
	R417	QRD161J-472	4.7K 1/6W CARBON RES.	
	R418	QRD161J-472	4.7K 1/6W CARBON RES.	
	R421	QRD161J-473	47K 1/6W CARBON RES.	
	R422	QRD161J-473	47K 1/6W CARBON RES.	
	R425	QRD161J-103	10K 1/6W CARBON RES.	
	R426	QRD161J-103	10K 1/6W CARBON RES.	
	R427	QRD161J-103	10K 1/6W CARBON RES.	
	R428	QRD161J-224	220K 1/6W CARBON RES.	
	R429	QRD161J-104	100K 1/6W CARBON RES.	
	R430	QRD161J-104	100K 1/6W CARBON RES.	
	R431	QRD161J-221	220 1/6W CARBON RES.	
	R432	QRD161J-221	220 1/6W CARBON RES.	
	R433	QRD161J-273	27K 1/6W CARBON RES.	
	R434	QRD161J-273	27K 1/6W CARBON RES.	
	R435	QRD161J-103	10K 1/6W CARBON RES.	
	R436	QRD161J-103	10K 1/6W CARBON RES.	
	R437	QRD161J-102	1K 1/6W CARBON RES.	
	R438	QRD161J-105	1M 1/6W CARBON RES.	
	R439	QRD161J-102	1K 1/6W CARBON RES.	
	R440	QRD161J-473	47K 1/6W CARBON RES.	
	R441	QRD161J-102	1K 1/6W CARBON RES.	
	R442	QRD161J-221	220 1/6W CARBON RES.	
	R443	QRD161J-221	220 1/6W CARBON RES.	
	R444	QRD161J-221	220 1/6W CARBON RES.	
	R445	QRD161J-221	220 1/6W CARBON RES.	
	R446	QRD161J-221	220 1/6W CARBON RES.	
	R447	QRD161J-221	220 1/6W CARBON RES.	
	R448	QRD161J-221	220 1/6W CARBON RES.	
	R449	QRD161J-221	220 1/6W CARBON RES.	
	R450	QRD161J-221	220 1/6W CARBON RES.	
	R451	QRD161J-221	220 1/6W CARBON RES.	
	R453	QRD161J-331	330 1/6W CARBON RES.	
	R454	QRD161J-331	330 1/6W CARBON RES.	
	R457	QRD161J-103	10K 1/6W CARBON RES.	
	R458	QRD161J-103	10K 1/6W CARBON RES.	
	R463	QRD161J-104	100K 1/6W CARBON RES.	
	R464	QRD161J-104	100K 1/6W CARBON RES.	
	R465	QRD161J-392	3.9K 1/6W CARBON RES.	
	R466	QRD161J-392	3.9K 1/6W CARBON RES.	
	R467	QRD161J-912	9.1K 1/6W CARBON RES.	
	R468	QRD161J-912	9.1K 1/6W CARBON RES.	
	R469	QRD161J-104	100K 1/6W CARBON RES.	
	R470	QRD161J-104	100K 1/6W CARBON RES.	
	R471	QRD161J-392	3.9K 1/6W CARBON RES.	
	R472	QRD161J-392	3.9K 1/6W CARBON RES.	
	R473	QRD161J-362	3.6K 1/6W CARBON RES.	
	R474	QRD161J-362	3.6K 1/6W CARBON RES.	
	R475	QRD161J-473	47K 1/6W CARBON RES.	
	R476	QRD161J-473	47K 1/6W CARBON RES.	
	R477	QRD161J-392	3.9K 1/6W CARBON RES.	
	R478	QRD161J-392	3.9K 1/6W CARBON RES.	
	R479	QRD161J-912	9.1K 1/6W CARBON RES.	
	R480	QRD161J-912	9.1K 1/6W CARBON RES.	
	R481	QRD161J-473	47K 1/6W CARBON RES.	
	R482	QRD161J-473	47K 1/6W CARBON RES.	
	R483	QRD161J-222	2.2K 1/6W CARBON RES.	
	R484	QRD161J-222	2.2K 1/6W CARBON RES.	
	R485	QRD161J-222	2.2K 1/6W CARBON RES.	
	R486	QRD161J-101	100 1/6W CARBON RES.	
	R489	QRD161J-221	220 1/6W CARBON RES.	
	R490	QRD161J-221	220 1/6W CARBON RES.	
	R491	QRD161J-221	220 1/6W CARBON RES.	
	R492	QRD161J-473	47K 1/6W CARBON RES.	

■ Electrical Parts List (ENB-253M)

⚠	Item	Parts Number	Description	Area
	R495	QRD161J-392	3.9K 1/6W CARBON RES.	
⚠	R496	QRD14CJ-470SX	47 1/4W UNF. CARBON R	
⚠	R497	QRD14CJ-470SX	47 1/4W UNF. CARBON R	
	R801	QRD161J-102	1K 1/6W CARBON RES.	
	R802	QRD161J-103	10K 1/6W CARBON RES.	
	R804	QRD161J-221	220 1/6W CARBON RES.	
	R806	QRD161J-221	220 1/6W CARBON RES.	
	R807	QRD161J-221	220 1/6W CARBON RES.	
	R808	QRD161J-221	220 1/6W CARBON RES.	
	R809	QRD161J-221	220 1/6W CARBON RES.	
	R810	QRD161J-221	220 1/6W CARBON RES.	
	R811	QRD161J-221	220 1/6W CARBON RES.	
	R816	QRD161J-103	10K 1/6W CARBON RES.	
	R817	QRD161J-103	10K 1/6W CARBON RES.	
	R818	QRD161J-103	10K 1/6W CARBON RES.	
	R819	QRD161J-103	10K 1/6W CARBON RES.	
	R820	QRD161J-181	180 1/6W CARBON RES.	
	R821	QRD161J-181	180 1/6W CARBON RES.	
	R824	QRD161J-181	180 1/6W CARBON RES.	
	R825	QRD161J-181	180 1/6W CARBON RES.	
	R826	QRD161J-181	180 1/6W CARBON RES.	
	R827	QRD161J-181	180 1/6W CARBON RES.	
	R828	QRD161J-331	330 1/6W CARBON RES.	
	R832	QRD161J-104	100K 1/6W CARBON RES.	
	R833	QRD161J-104	100K 1/6W CARBON RES.	
	R834	QRD161J-104	100K 1/6W CARBON RES.	
	R838	QRD161J-473	47K 1/6W CARBON RES.	
	R901	QRD167J-153	15K 1/6W CARBON RES.	
	R902	QRD167J-153	15K 1/6W CARBON RES.	
	R903	QRD161J-913	91K 1/6W CARBON RES.	
	R904	QRD161J-913	91K 1/6W CARBON RES.	
	R908	QRD161J-102	1K 1/6W CARBON RES.	
	R909	QRD161J-102	1K 1/6W CARBON RES.	
	R910	QRD161J-102	1K 1/6W CARBON RES.	
	R911	QRD161J-102	1K 1/6W CARBON RES.	
	R915	QRD161J-103	10K 1/6W CARBON RES.	
	R916	QRD161J-222	2.2K 1/6W CARBON RES.	
	R917	QRD161J-112	1.1K 1/6W CARBON RES.	
	R918	QRD161J-112	1.1K 1/6W CARBON RES.	
		OTHERS		
		EMW10707-003	PRINTED BOARD	
	J401	QNN0018-002	PIN JACK	
	J402	QNN0073-001	PIN JACK	
	J891	QMS3R80-EE0S	HEADPHONE JACK	
	S801	ESP0001-023M	TACT SWITCH	
	S802	ESP0001-023M	TACT SWITCH	
	S803	ESP0001-023M	TACT SWITCH	
	S804	ESP0001-023M	TACT SWITCH	
	S805	ESP0001-023M	TACT SWITCH	
	S806	ESP0001-023M	TACT SWITCH	
	S807	ESP0001-023M	TACT SWITCH	
	S808	ESP0001-023M	TACT SWITCH	
	S809	ESP0001-023M	TACT SWITCH	
	S810	ESP0001-023M	TACT SWITCH	
	S811	ESP0001-023M	TACT SWITCH	
	S812	ESP0001-023M	TACT SWITCH	
	S813	ESP0001-023M	TACT SWITCH	
	S814	ESP0001-023M	TACT SWITCH	
	S815	ESP0001-023M	TACT SWITCH	
	S816	ESP0001-023M	TACT SWITCH	
	X401	ECX0004-194KM	CERAMIC RESONATOR	
	X801	FSCX4001-002	CRYSTAL	
	BK401	LE30337-002A	SHIELD BRACKET	
	BK801	LE30338-001A	HOLDER BRACKET	
	CN085	EMV7158-018	CONNECT TERMINAL	
	CN251	EMV5163-009R	CONNECT TERMINAL	
	CN401	EMV5163-016R	SOCKET WIRE ASSY	
	CN402	EMV5163-020R	CONNECT TERMINAL	
	CN801	VMC0163-R27	CONNECT TERMINAL	

⚠	Item	Parts Number	Description	Area
	DI801	QLF0020-001	FLUORESCENT DISPLAY TUBE	
	EP001	E409182-001SM	EARTH TERMINAL	
	EP002	E409182-001SM	EARTH TERMINAL	
	FS801	LE30001-002A	FELT SPACER	
	FS814	E3400-431	FELT SPACER	
	FW202	EWR33D-16LS	FLAT WIRE	
	FW891	EWR36D-37LS	FLAT WIRE	
	SP401	VYH7653-001	LEAF SPRING	
	SP801	VYH7653-001	LEAF SPRING	

■ Electrical Parts List (ENA-178AM) - Only for J and C -

⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC102	LA1837	I.C(MONO-ANALOG)	
	IC121	LC72131	I.C(M)	
		DIODES		
	D121	1SS133	SI.DIODE	
	D123	1SS133	SI.DIODE	
	D129	1SS133	SI.DIODE	
	D130	MTZ10JC	ZENER DIODE	
		TRANSISTORS		
	Q101	2SC461	SI.TRANSISTOR	
	Q102	2SC535	SI.TRANSISTOR	
	Q103	2SC461	SI.TRANSISTOR	
	Q121	DTA124ES	DIGITAL TRANSISTOR	
	Q123	2SC2060(Q,R)	SI.TRANSISTOR	
		CAPACITORS		
	C101	QCVB1CM-103Y	0.01MF 16V CER.CAP.	
	C102	QETN1EM-107Z	100MF 25V E.CAP.	
	C103	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C104	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C105	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C107	QETN1EM-226Z	22MF 25V E.CAP.	
	C109	QETN1EM-226Z	22MF 25V E.CAP.	
	C111	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C112	QCT30CH-120Y	12PF 50V CER.CAP.	
	C117	QCSB1HK-5R6Y	5.6PF 50V CER.CAP.	
	C118	QCSB1HJ-150Y	15PF 50V CER.CAP.	
	C121	QCT30CH-180Y	18PF 50V CER.CAP.	
	C122	QCT30CH-180Y	18PF 50V CER.CAP.	
	C123	QCC21EM-473	0.047MF 25V CER.CAP.	
	C126	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C128	QENB1HM-474	0.47MF 50V NP E.CAP.	
	C129	QCGB1HK-102	1000PF 50V CER.CAP.	
	C130	QETN1EM-107Z	100MF 25V E.CAP.	
	C133	QETN1EM-226Z	22MF 25V E.CAP.	
	C134	QCBB1HK-331Y	330PF 50V CER.CAP.	
	C135	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C136	QETN1HM-105Z	1MF 50V AL E.CAP.	
	C137	QCBB1HK-681Y	680PF 50V CER.CAP.	
	C139	QFLB1HJ-333	0.033MF 50V MYLAR CAP.	
	C140	QFLB1HJ-333	0.033MF 50V MYLAR CAP.	
	C141	QCC21EM-473	0.047MF 25V CER.CAP.	
	C143	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C144	QCC21EM-473	0.047MF 25V CER.CAP.	
	C146	QETN1HM-105Z	1MF 50V AL E.CAP.	
	C147	QETN1HM-105Z	1MF 50V AL E.CAP.	
	C148	QETN1HM-474Z	0.47MF 50V AL E.CAP.	
	C149	QETN1HM-105Z	1MF 50V AL E.CAP.	
	C150	QETN1EM-226Z	22MF 25V E.CAP.	
	C156	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C157	QCC21EM-473	0.047MF 25V CER.CAP.	
	C158	QETN1EM-226Z	22MF 25V E.CAP.	
	C161	QETN1HM-105Z	1MF 50V AL E.CAP.	
	C162	QETN1HM-105Z	1MF 50V AL E.CAP.	
	C163	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C164	QCC21EM-473	0.047MF 25V CER.CAP.	
	C168	QFV81HJ-274	0.27MF 50V THIN FILM CAP.	
	C180	QETN1EM-107Z	100MF 25V E.CAP.	
	C181	QFLB1HJ-562	5600PF 50V MYLAR CAP.	
	C182	QFLB1HJ-562	5600PF 50V MYLAR CAP.	
	C183	QCHB1EZ-223	0.022MF 25V CER.CAP.	
	C184	QETN1EM-107Z	100MF 25V E.CAP.	
	C185	QETN1HM-105Z	1MF 50V AL E.CAP.	
	C186	QETN1HM-105Z	1MF 50V AL E.CAP.	
		RESISTORS		
	R102	QRD167J-332	3.3K 1/6W CARBON RES.	
	R103	QRD161J-221	220 1/6W CARBON RES.	
	R104	QRD167J-272	2.7K 1/6W CARBON RES.	
	R105	QRD161J-391	390 1/6W CARBON RES.	
	R106	QRD161J-102	1K 1/6W CARBON RES.	

⚠	Item	Parts Number	Description	Area
	R107	QRD161J-561	560 1/6W CARBON RES.	
	R108	QRD167J-332	3.3K 1/6W CARBON RES.	
	R109	QRD161J-221	220 1/6W CARBON RES.	
	R115	QRD161J-104	100K 1/6W CARBON RES.	
	R119	QRD161J-103	10K 1/6W CARBON RES.	
	R121	QRD161J-473	47K 1/6W CARBON RES.	
	R122	QRD161J-472	4.7K 1/6W CARBON RES.	
	R124	QRD161J-222	2.2K 1/6W CARBON RES.	
	R126	QRD167J-562	5.6K 1/6W CARBON RES.	
	R127	QRD167J-822	8.2K 1/6W CARBON RES.	
	R128	QRD161J-472	4.7K 1/6W CARBON RES.	
	R129	QRD161J-222	2.2K 1/6W CARBON RES.	
⚠	R130	QRD14CJ-680SX	68 1/4W UNF.CARBON R	
	R132	QRD161J-102	1K 1/6W CARBON RES.	
	R133	QRD167J-822	8.2K 1/6W CARBON RES.	
	R134	QRD161J-102	1K 1/6W CARBON RES.	
	R140	QRD161J-183	18K 1/6W CARBON RES.	
	R141	QRD161J-472	4.7K 1/6W CARBON RES.	
	R142	QRD161J-470	47 1/6W CARBON RES.	
	R143	QRD167J-562	5.6K 1/6W CARBON RES.	
	R144	QRD167J-332	3.3K 1/6W CARBON RES.	
	R145	QRD161J-103	10K 1/6W CARBON RES.	
	R146	QRD167J-332	3.3K 1/6W CARBON RES.	
	R147	QRD167J-153	15K 1/6W CARBON RES.	
	R148	QRD161J-561	560 1/6W CARBON RES.	
	R150	QRD161J-101	100 1/6W CARBON RES.	
	R157	QRD167J-682	6.8K 1/6W CARBON RES.	
	R158	QRD167J-682	6.8K 1/6W CARBON RES.	
	R161	QRD161J-102	1K 1/6W CARBON RES.	
	R162	QRD161J-102	1K 1/6W CARBON RES.	
	R163	QRD161J-472	4.7K 1/6W CARBON RES.	
	R164	QRD161J-472	4.7K 1/6W CARBON RES.	
	R181	QRD161J-102	1K 1/6W CARBON RES.	
	R182	QRD161J-103	10K 1/6W CARBON RES.	
	R183	QRD161J-103	10K 1/6W CARBON RES.	
	R184	QRD161J-103	10K 1/6W CARBON RES.	
		OTHERS		
		EMW10684-003	PRINTED BOARD	
	L111	EQL4007-150T	INDUCTOR	
	T111	EQR7121-007	RF COIL	
	T141	QQR0613-001	I.F.TRANSFORMER	
	T142	QAX0303-001	CERAMIC FILTER	
	X121	ECX0007-200KWJ1	CRYSTAL	
	AT101	FMMB10YV-401K	ANTENNA TERMINAL	
	CF101	QAX0284-001Z	CERAMIC FILTER	
	CF102	QAX0284-001Z	CERAMIC FILTER	
	CN111	EMV5163-012R	CONNECT TERMINAL	
	FL141	EQF0101-013	LOWPASS FILTER	
	FL142	EQF0101-013	LOWPASS FILTER	
	RF101	EAF2207-001	FRONT END	

■ Electrical Parts List (ENP-055M)

⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC031	SAA7367TX	I.C(DIGI-MOS)	
	IC041	PCM1717AE-X	I.C(MONO-ANALOG)	
	IC051	NJM2100MW	I.C(MONO-ANALOG)	
	IC061	PCM1717AE-X	I.C(MONO-ANALOG)	
	IC071	BA15218F	I.C(MONO-ANALOG)	
	IC081	TMS57052BFT	I.C(M)	
	IC091	LC32464M-80X	I.C(D-RAM)	
		CAPACITORS		
	C021	NEA21EM-475NZ	4.7MF 25V AL E.CAP.	
	C022	NEA21EM-475NZ	4.7MF 25V AL E.CAP.	
	C023	NCB31CK-473AY	0.047MF 16V CER.CAP.	
	C024	NCB31CK-473AY	0.047MF 16V CER.CAP.	
	C025	NEA20GM-476NZ	47MF AL E.CAP.	
	C026	NEA20GM-476NZ	47MF AL E.CAP.	
	C027	NCS31HJ-680AY	68PF 50V CER.CAP.	
	C028	NCS31HJ-680AY	68PF 50V CER.CAP.	
	C029	NCB31CK-473AY	0.047MF 16V CER.CAP.	
	C030	NEA20JM-476NZ	47MF 6.3V AL E.CAP.	
	C031	NCB31CK-223A	0.022MF 16V CER.CAP.	
	C035	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C036	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C037	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C038	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C041	NEA21CM-106NZ	10MF 16V AL E.CAP.	
	C042	NEA21CM-106NZ	10MF 16V AL E.CAP.	
	C045	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C046	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C047	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C048	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C049	NCS31HJ-220AY	22PF 50V CER.CAP.	
	C050	NCS31HJ-220AY	22PF 50V CER.CAP.	
	C051	NCB31CK-223A	0.022MF 16V CER.CAP.	
	C052	NCB31CK-223A	0.022MF 16V CER.CAP.	
	C053	NCB21HK-182AY	1800PF 50V CER.CAP.	
	C054	NCB21HK-182AY	1800PF 50V CER.CAP.	
	C055	NCB31CK-103AYM	0.01MF 16V CER.CAP.	
	C056	NCB31CK-103AYM	0.01MF 16V CER.CAP.	
	C057	NEA21HM-105NZ	1MF 50V AL E.CAP.	
	C058	NEA21HM-105NZ	1MF 50V AL E.CAP.	
	C059	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C060	NCB31CK-103AYM	0.01MF 16V CER.CAP.	
	C061	NEA21CM-106NZ	10MF 16V AL E.CAP.	
	C062	NEA21CM-106NZ	10MF 16V AL E.CAP.	
	C065	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C066	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C067	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C068	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C071	NCB31CK-223A	0.022MF 16V CER.CAP.	
	C072	NCB31CK-223A	0.022MF 16V CER.CAP.	
	C073	NCB21HK-182AY	1800PF 50V CER.CAP.	
	C074	NCB21HK-182AY	1800PF 50V CER.CAP.	
	C075	NCB31CK-103AYM	0.01MF 16V CER.CAP.	
	C076	NCB31CK-103AYM	0.01MF 16V CER.CAP.	
	C077	NEA21HM-105NZ	1MF 50V AL E.CAP.	
	C078	NEA21HM-105NZ	1MF 50V AL E.CAP.	
	C079	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C080	NCB31CK-103AYM	0.01MF 16V CER.CAP.	
	C081	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C082	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C083	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C084	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C085	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C086	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C087	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C088	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C089	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C091	NCB31HK-102AY	1000PF 50V CER.CAP.	
	C092	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C095	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C096	NCF31AZ-105AY	1MF 10V CER.CAP.	
	C097	NEA20JM-107NPM	100MF 6.3V E.CAP.	
	C098	NEA20JM-107NPM	100MF 6.3V E.CAP.	

⚠	Item	Parts Number	Description	Area
	C099	NCS31HJ-101AY	100PF 50V CER.CAP.	
	C100	NCB31HK-102AY	1000PF 50V CER.CAP.	
		RESISTORS		
	R021	NRSA63J-104NY	METAL GLAZE	
	R022	NRSA63J-104NY	METAL GLAZE	
	R023	NRSA63J-103N	METAL GLAZE	
	R024	NRSA63J-103N	METAL GLAZE	
	R025	NRSA63J-624NY	METAL GLAZE	
	R026	NRSA63J-334NY	METAL GLAZE	
	R027	NRSA63F-103NY	METAL GLAZE	
	R028	NRSA63F-103NY	METAL GLAZE	
	R029	NRSA63J-271NY	METAL GLAZE	
	R030	NRSA63J-271NY	METAL GLAZE	
	R031	NRSA63J-333NY	METAL GLAZE	
	R035	NRSA63J-102NY	METAL GLAZE	
	R049	NRSA63J-332NY	METAL GLAZE	
	R051	NRSA63J-102NY	METAL GLAZE	
	R052	NRSA63J-102NY	METAL GLAZE	
	R053	NRSA63J-102NY	METAL GLAZE	
	R054	NRSA63J-102NY	METAL GLAZE	
	R055	NRSA63J-102NY	METAL GLAZE	
	R056	NRSA63J-102NY	METAL GLAZE	
	R057	NRSA63J-473NY	METAL GLAZE	
	R058	NRSA63J-473NY	METAL GLAZE	
	R059	NRSA63J-221NY	METAL GLAZE	
	R060	NRSA63J-221NY	METAL GLAZE	
	R071	NRSA63J-102NY	METAL GLAZE	
	R072	NRSA63J-102NY	METAL GLAZE	
	R073	NRSA63J-102NY	METAL GLAZE	
	R074	NRSA63J-102NY	METAL GLAZE	
	R075	NRSA63J-102NY	METAL GLAZE	
	R076	NRSA63J-102NY	METAL GLAZE	
	R077	NRSA63J-473NY	METAL GLAZE	
	R078	NRSA63J-473NY	METAL GLAZE	
	R079	NRSA63J-221NY	METAL GLAZE	
	R080	NRSA63J-221NY	METAL GLAZE	
	R081	NRSA63J-102NY	METAL GLAZE	
	R082	NRSA63J-102NY	METAL GLAZE	
	R083	NRSA63J-102NY	METAL GLAZE	
	R084	NRSA63J-182NY	METAL GLAZE	
	R085	NRSA63J-472NY	METAL GLAZE	
	R086	NRSA63J-472NY	METAL GLAZE	
	R087	NRSA63J-472NY	METAL GLAZE	
	R090	NRSA63J-103N	METAL GLAZE	
	R091	NRSA63J-0R0AY	METAL GLAZE	
	R092	NRSA63J-0R0AY	METAL GLAZE	
	R093	NRSA63J-0R0AY	METAL GLAZE	
	R094	NRSA63J-0R0AY	METAL GLAZE	
	R095	NRSA63J-0R0AY	METAL GLAZE	
	R096	NRSA63J-0R0AY	METAL GLAZE	
	R097	NRSA63J-0R0AY	METAL GLAZE	
		OTHERS		
		EMW10661-102	PRINTED BOARD	
	K021	EQA0002-N102Y	FERRITE BEADS	
	K022	EQA0002-N102Y	FERRITE BEADS	
	K041	EQA0002-N102Y	FERRITE BEADS	
	K042	EQA0002-N102Y	FERRITE BEADS	
	K051	EQA0002-N102Y	FERRITE BEADS	
	K052	EQA0002-N102Y	FERRITE BEADS	
	K061	EQA0002-N102Y	FERRITE BEADS	
	K062	EQA0002-N102Y	FERRITE BEADS	
	K063	EQA0002-N102Y	FERRITE BEADS	
	K071	EQA0002-N102Y	FERRITE BEADS	
	K072	EQA0002-N102Y	FERRITE BEADS	
	K095	EQA0002-N102Y	FERRITE BEADS	
	K096	EQA0002-N102Y	FERRITE BEADS	
	X041	NAX0001-001X	CRYSTAL	
	CN095	EMV5158-018E	CONNECT TERMINAL	
	LC031	EQF0704-N01YU	INDUCTOR	
	LC041	EQF0704-N01YU	INDUCTOR	
	LC081	EQF0703-N103NZ	INDUCTOR	
	LC091	EQF0703-N103NZ	INDUCTOR	

PARTS LIST

<XT-TD7>

* All printed circuit boards and its assemblies are not available as service parts.

The Marks for Designated Areas

J ---- the U.S.A.
C ---- Canada
UB ---- Hong Kong
U ---- Universal Type
UP ---- Korea
US ---- Singapore
UT ---- Taiwan
No marks indicates all areas.

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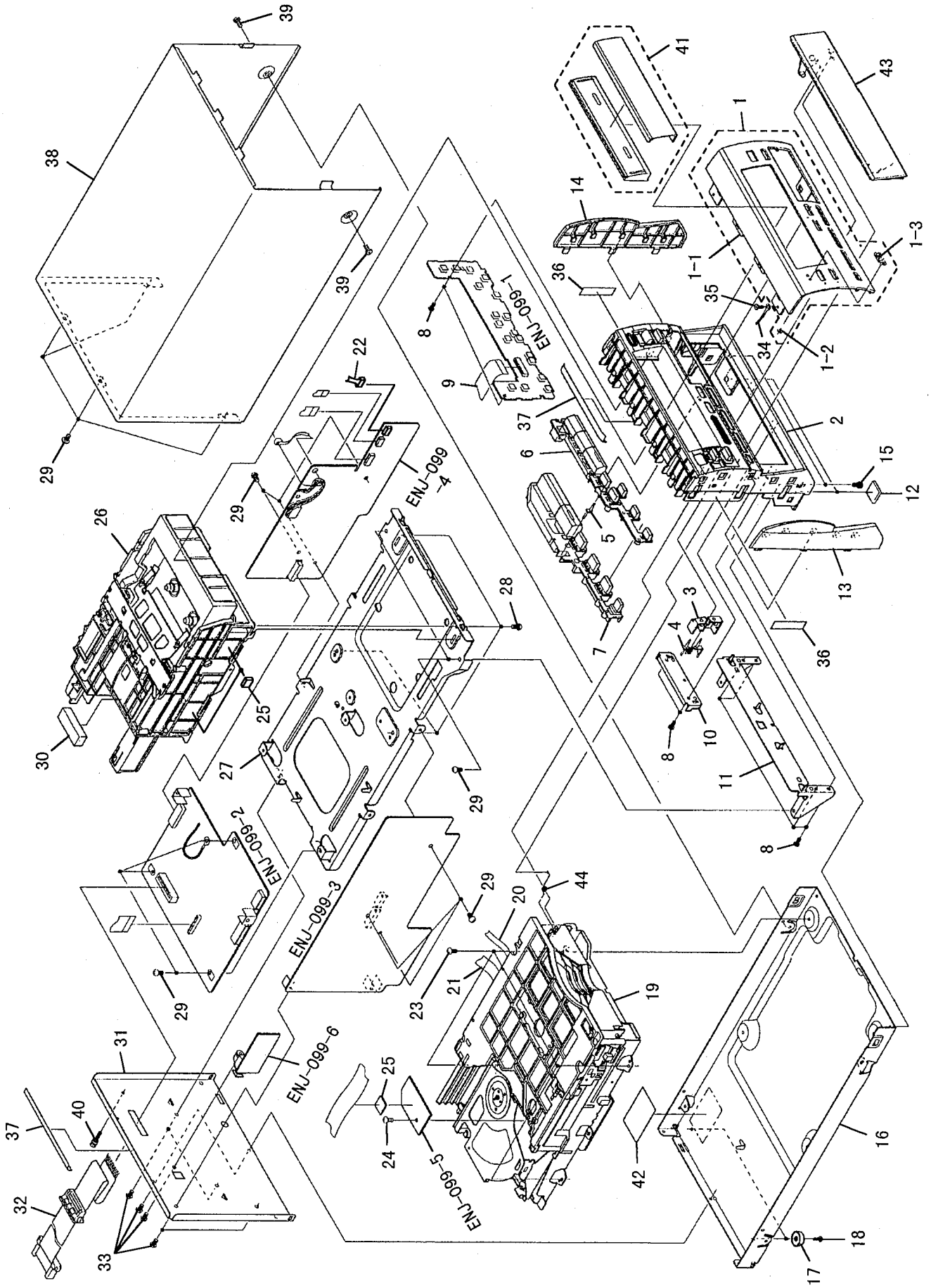
General Exploded View and Parts List

Block No. M 2 M M



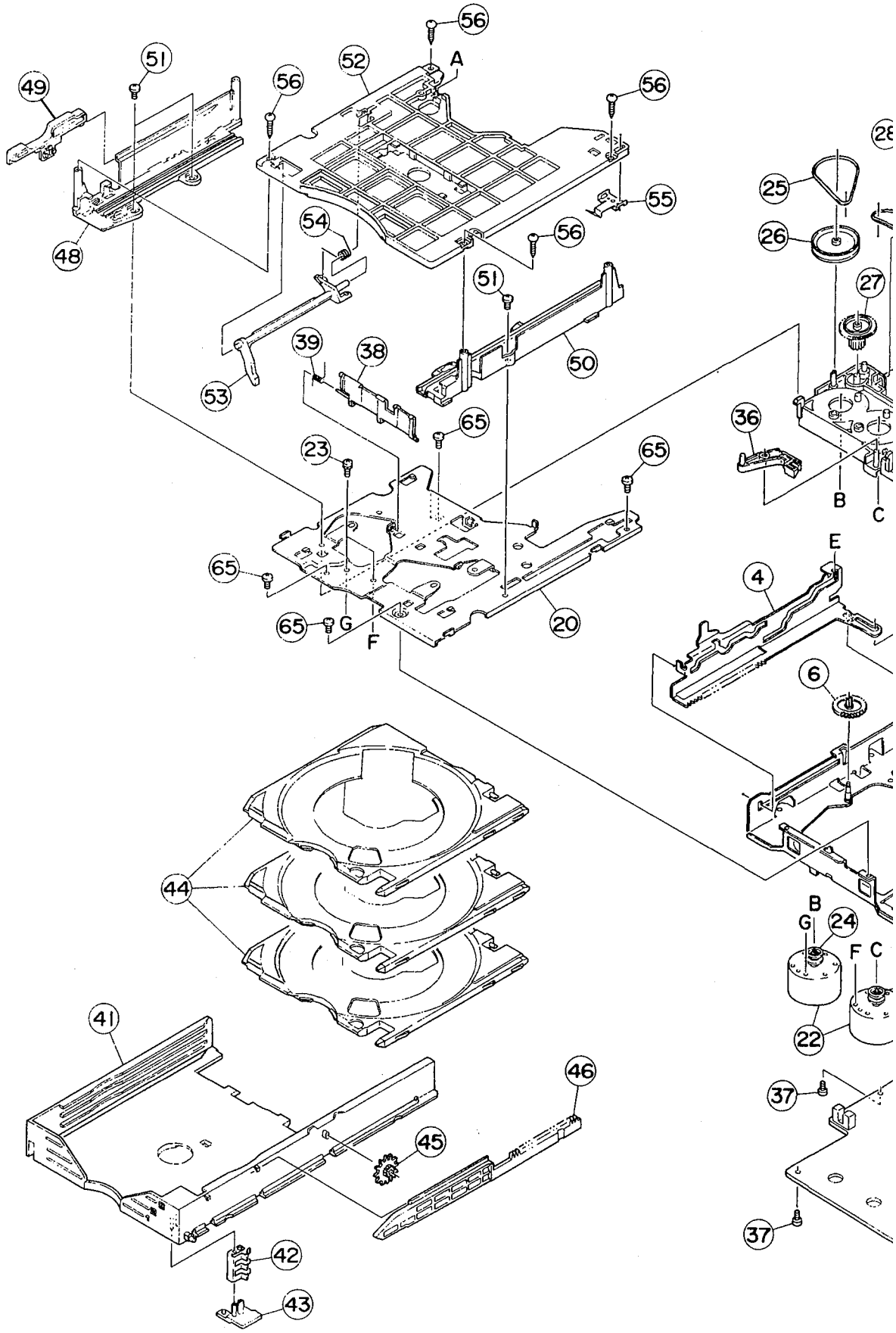
■ Parts List

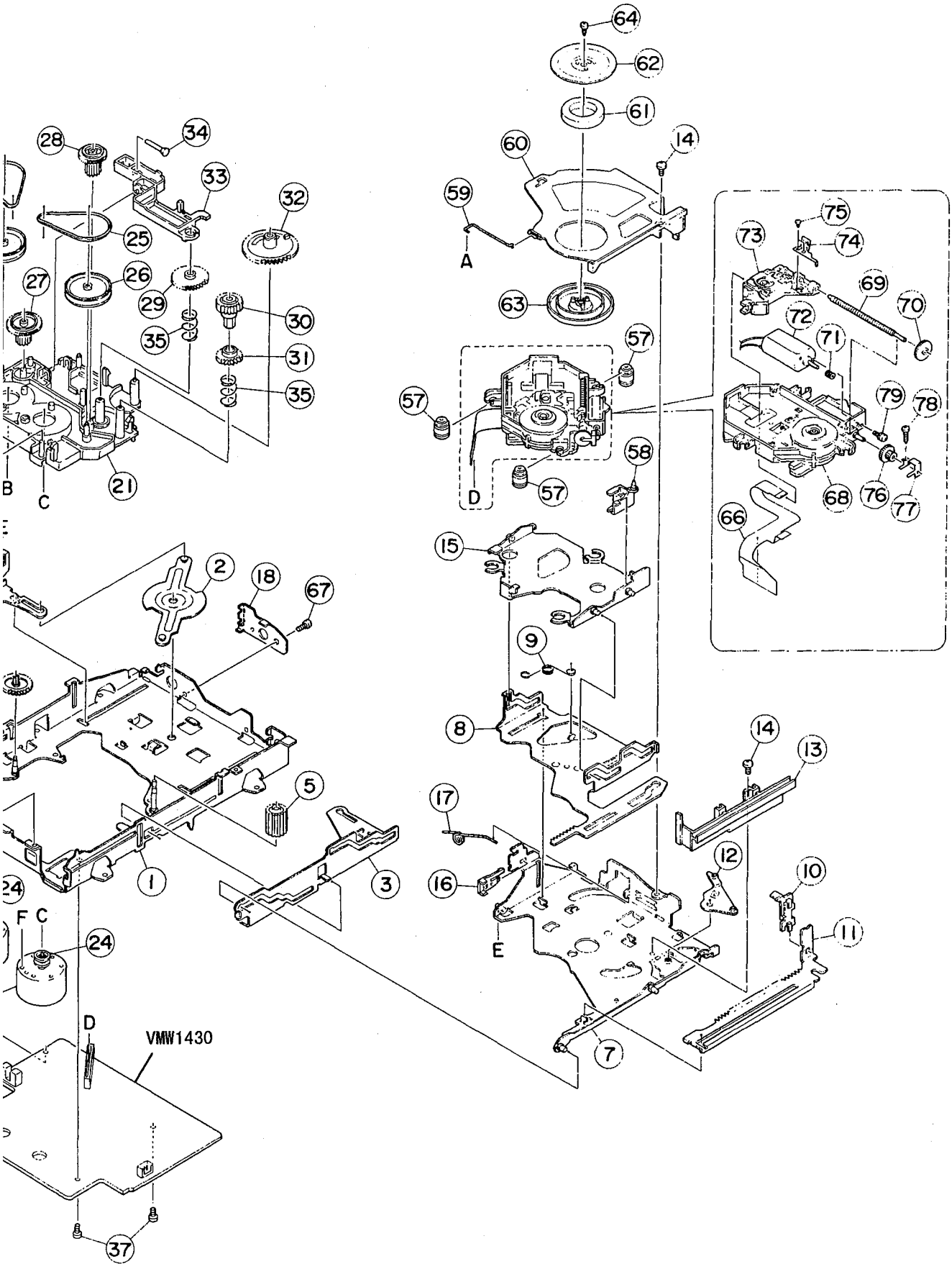
Block No. M 2 M M

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EFP-XTTD7U(S)	FRONT PANEL ASSY	1		
	1-1	LE20101-001A	FRONT PANEL	1		
	1-2	E60912-003	SPEED NUT	1		
	1-3	E406971-221	JVC MARK	1		
	2	LE10067-001A	FRONT BASE	1		
	3	LE30380-001A	L.E.D. HOLDER	1		
	4	LE40126-002A	INDICATOR LENS	1	DOLBY	
	5	LE40127-002A	INDICATOR LENS	1	REC	
	6	LE20103-001A	PUSH BUTTON ASSY	1	PLAY	
	7	LE20106-003A	PUSH BUTTON ASSY	1	STOP	
	8	SDSF2608Z	SCREW	6		
	9	VWF1019-45TTA	FLAT WIRE	1		
	10	LE30340-001A	STAY BRACKET	1		
	11	LE30341-001A	STAY BRACKET	1		
	12	E75896-001	SPACER	2		
	13	LE20098-001A	SIDE FITTING	1		
	14	LE20099-001A	SIDE FITTING	1		
	15	SDSG3006CC	SCREW	2		
	16	LE10068-001A	CHASSIS BASE	1		
	17	E47227-029	FOOT	2		
	18	SBSG3008Z	TAPPING SCREW	2		
	19	----------	CHANGER MECHANISM ASSY	1	See page 5-4	
	20	VWF1007-12TTAX	FLAT WIRE	1	CN606-CN616	
	21	VWF1011-12TTAX	FLAT WIRE	1	CN605-CN615	
	22	EWS243-088	SOCKET WIRE ASSY	1	SC781	
	23	SBST3006CC	TAPPING SCREW	4		
	24	SBSF3006Z	TAPPING SCREW	1		
	25	E3400-431	FELT SPACER	3		
	26	----------	CASSETTE MECHANISM ASSY	1	See page 5-6, 9	
	27	LE10069-002A	CHASSIS BASE	1		
	28	SBSF3008Z	TAPPING SCREW	4		
	29	SBSG3008CC	TAPPING SCREW	16		
	30	LE30001-004A	SPACER	1		
	31	LE20109-010A	REAR PANEL	1		UP
		LE20109-013A	REAR PANEL	1		J
		LE20109-014A	REAR PANEL	1		C
		LE20109-015A	REAR PANEL	1		UB U US UT
	32	EWP907-023	FLAT WIRE	1	SYSTEM WIRE	
	33	E73273-003	SPECIAL SCREW	6		
	34	EWT025-006	TERMINAL WIRE	1		
	35	SDSG3008Z	SCREW	1		
	36	LE30001-016A	SPACER	2		
	37	LE30001-017A	SPACER	2		
	38	LE20097-002A(S)	METAL COVER	1		
	39	SDSG3006N	TAPPING SCREW	2		
	40	E409257-001	EARTH TERMINAL	1		
	41	LE30342-001ASA	TRAY FITTING ASSY	1		
	42	E406507-001	LASER CAUTION	1		Except J
	43	LE20164-001A	CD FITTING	1		
	44	LE40133-002A	SPRING	1		
	-	E61029-005	NUMBER LABEL	1		Except J
		E307570-001	NUMBER LABEL	1		J
		LE40210-001A	CAUTION SHEET	1		UT

CD Changer Mechanism Ass'y and Parts List

Block No. M3MM

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■ Parts List (CD Changer Mechanism Ass'y) Block No. M3MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	VKM3893-00B	CHASSIS BASE	1		
	2	VKL7846-00A	CONNECT ARM	1		
	3	VKL2763-001	SLIDE CAM	1		
	4	VKL2764-001	SLIDE CAM	1		
	5	VKS3765-001	HOOK GEAR	1		
	6	VKS3766-001	POSITION GEAR	1		
	7	VKM3895-00B	LIFTER BASE	1		
	8	VKL2766-004	LIFTER	1		
	9	VKW5245-002	DIRECTION SPRING	1		
	10	VKS3767-001	HOOK	1		
	11	VKM3896-001	SLIDER	1		
	12	VKM3897-001	LOCK ARM	1		
	13	VKS3768-001	GUIDE RAIL	1		
	14	SDST2605Z	SCREW	2		
	15	VKM3898-00C	FLOATING BASE	1		
	16	VKS3769-001	TRAY HOLDER	1		
	17	VKW5250-002	LEAF SPRING	1		
	18	VKL7881-002	PROTECTOR	1		
	20	VKL2768-001	TRAY BASE	1		
	21	VKS1162-001	ACTUATOR	1		
	22	MSN5G257A	DC MOTOR	2		
	23	LPSP2606Z	ASSY SCREW	2		
	24	VKS5548-001	MOTOR PULLEY	2		
	25	VKB3000-177	CAPSTAN BELT	2		
	26	VKS5549-001	PULLEY GEAR	2		
	27	VKS5550-001	THIRD GEAR	1		
	28	VKS5551-001	THIRD GEAR	1		
	29	VKS5552-001	ELAVATOR GEAR	1		
	30	VKS5553-001	TIMING GEAR	1		
	31	VKS5554-001	DOWN GEAR	1		
	32	VKS3770-001	SWITCH GEAR	1		
	33	VKS2269-001	ELEVATOR ARM	1		
	34	VKH5783-001	ELEVATOR PIN	1		
	35	VKW5246-001	ELEVATOR SPRING	2		
	36	VKS3772-001	SELECT LEVER	1		
	37	SDST2605Z	SCREW	4		
	38	VKS3773-001	LID PLATE	1		
	39	VKW5247-003	SPRING	1		
	41	VKS1157-001	DISK CASE	1		
	42	VKM3900-001	CLICK SPRING	1		
	43	VKS3774-001	SPRING COVER	1		
	44	VKS1158-001	SUB TRAY	3		
	45	VKS5555-001	PLANET GEAR	1		
	46	VKS3775-001	DOOR LEVER	1		
	48	VKS1159-001	TRAY GUIDE	1		
	49	VKS3777-001	SELECT SWITCH	1		
	50	VKS1160-001	TRAY GUIDE	1		
	51	SDST2605Z	SCREW	3		
	52	VKS1163-003	TOP COVER	1		
	53	VKS3778-001	SELECTOR	1		
	54	VKW5248-001	SELECTOR SPRING	1		
	55	VKM3901-001	CLICK SPRING	1		
	56	SBSF2608Z	TAPPING SCREW	2		

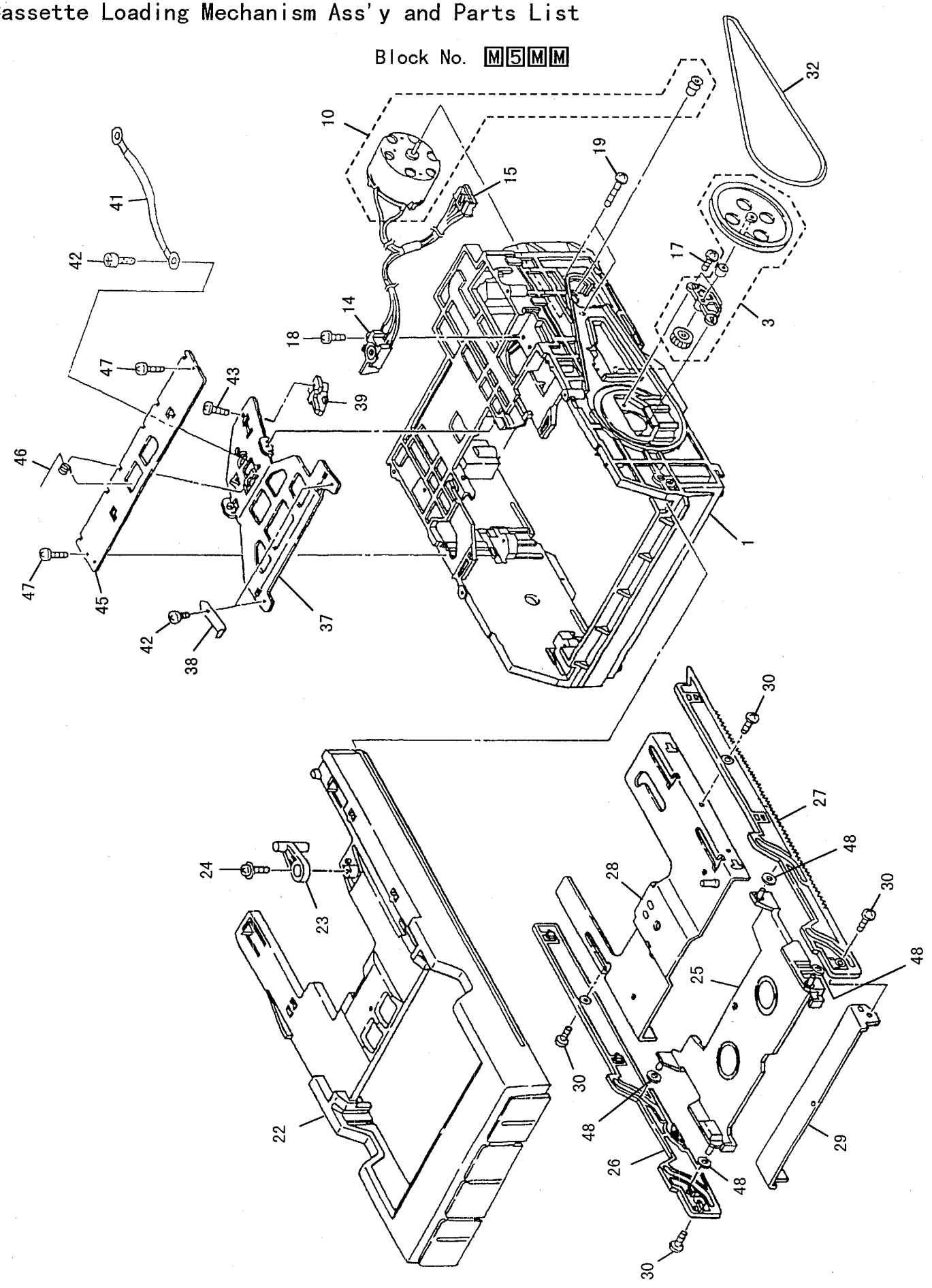
■ Parts List (CD Changer Mechanism Ass'y)

Block No. M3MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	57	VKZ4791-001	INSULATOR	3		
	58	VKS3779-001	STOPPER	1		
	59	VKW5249-001	ROD	1		
	60	VKL2769-002	CLAMPER BASE	1		
	61	VYH7313-003	MAGNET	1		
	62	VKL7757-001	YOKE PLATE	1		
	63	VKS3780-001	CLAMPER	1		
	64	SPSF2604Z	TAPPING SCREW	1		
	65	SDST2605Z	SCREW	4		
	66	VMW3699-001	F.P.C.	1		
	67	SDST2605Z	SCREW	1		
	68	VKS1161-002	MECHA CHASSIS ASSY	1		
	69	VKZ4781-001	SCREW SHAFT	1		
	70	VKS5556-001	FEED GEAR	1		
	71	VKS5557-001	LOADING GEAR	1		
	72	PPN-13KA10C	DC MOTOR ASSY	1		
	73	OPTIMA-610B1	OPTICAL PICK-UP	1		
	74	VKM3903-001	RACK ARM	1		
	75	SPSK1714M	SCREW	2		
	76	VKS5558-001	MIDDLE GEAR	1		
	77	VKM3904-001	SHAFT HOLDER	1		
	78	VKZ4248-206	TAPPING SCREW	1		
	79	LPSP2004Z	ASSY SCREW	1		

Cassette Loading Mechanism Ass'y and Parts List

Block No. M5MM



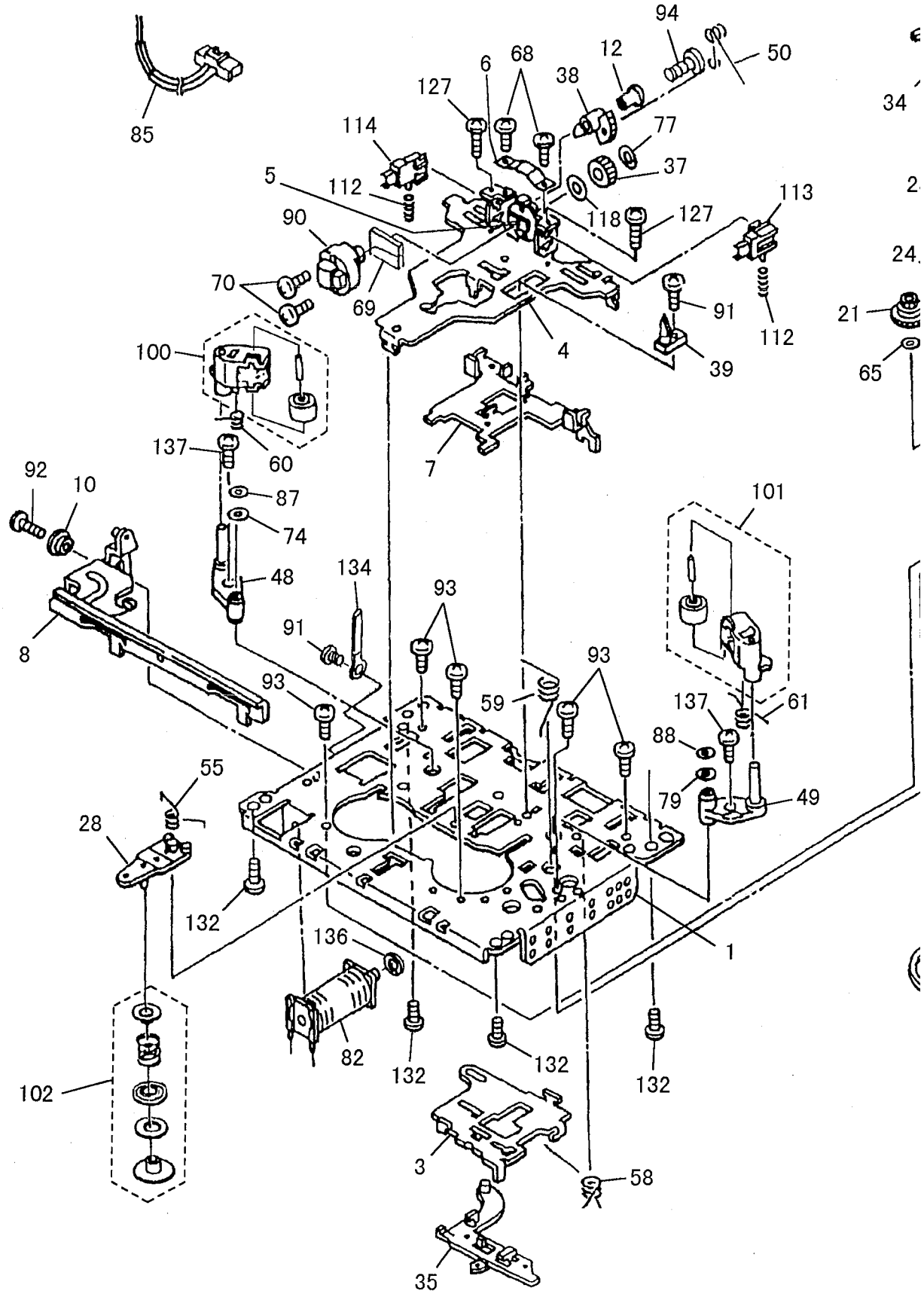
■ Parts List (Cassette Loading Mechanism Ass'y)

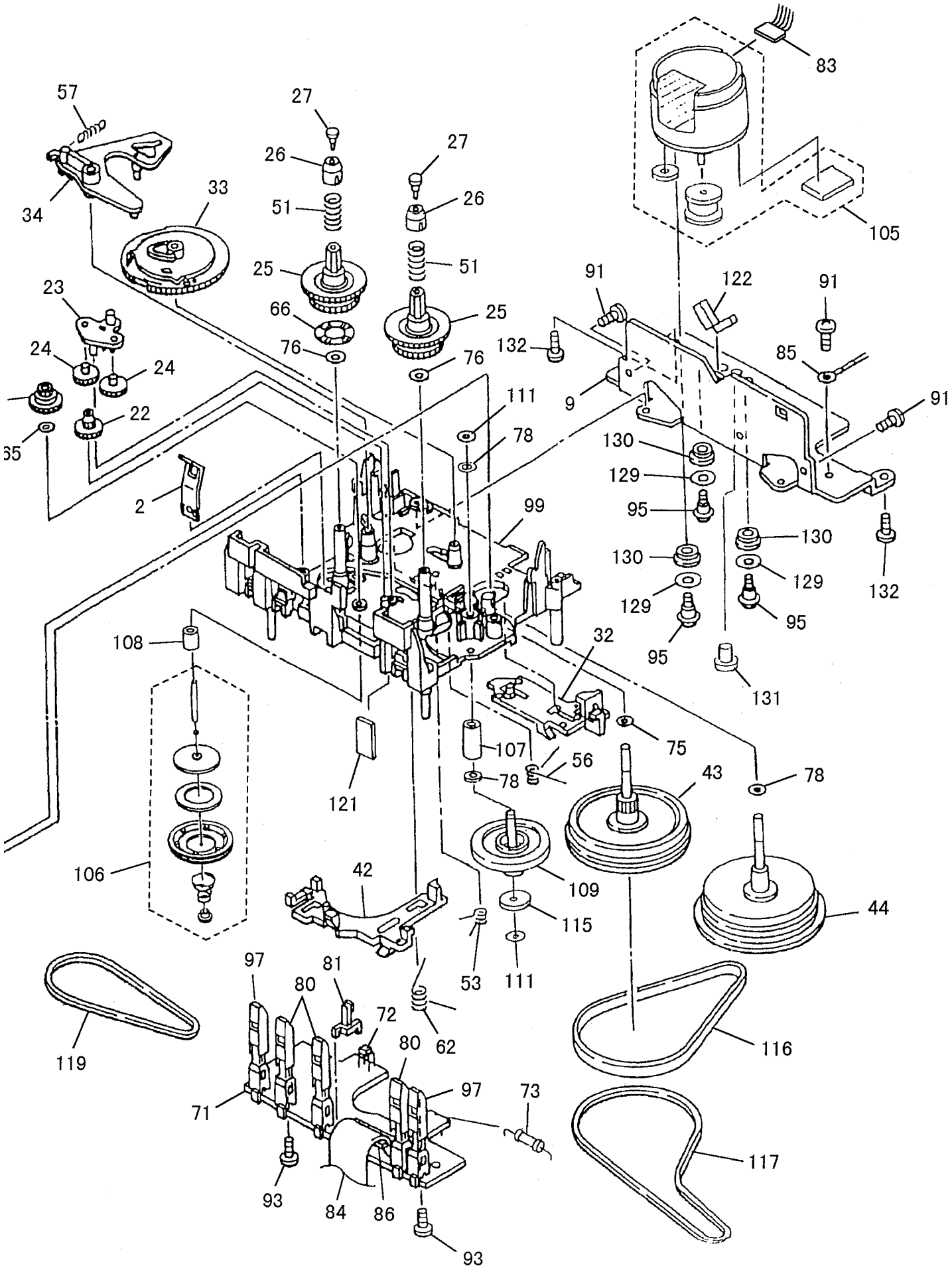
Block No. M5MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EGS-A10303708	MECHA BASE	1		
	3	EGS-D13153608	LOADING GEAR ASSY	1		
	10	EGS-T42063408	LOADING MOTOR ASSY	1		
	14	EGS-S33206105	LEVER SWITCH	1		
	15	EGS-FD9072	CONNECT. WIRE ASSY	1		
	17	SDSF2605Z	SCREW	2		
	18	SDSF2606M	SCREW	1		
	19	SDSP2604Z	SCREW	2		
	22	EGS-J99052308	TRAY	1		
	23	EGS-D10335908	ARM STOPPER	1		
	24	EGS-N09302505	SCREW	1		
	25	EGS-J99052408	TRAY	1		
	26	EGS-D10335708	SLIDER	1		
	27	EGS-D10335808	SLIDER	1		
	28	EGS-J21598108	TRAY BRACKET	1		
	29	EGS-J21598308	BRACKET	1		
	30	SDST2005Z	SCREW	4		
	32	EGS-D16034508	LOADING BELT	1		
	37	EGS-J11019108	CLAMPER PLATE	1		
	38	EGS-G02101908	LEAF SPRING	2		
	39	EGS-J90070008	CLAMPER GUIDE	1		
	41	EGS-E35072008	EARTH WIRE	1		
	42	SDST2003Z	SCREW	3		
	43	SDSF2006Z	SCREW	1		
	45	EGS-F39006508	CLAMPER BRACKET	1		
	46	EGS-G01355408	TORSHON SPRING	1		
	47	SDSF2008Z	SCREW	2		
	48	EGS-8342126017	POLY WASHER	4		

Cassette Mechanism Ass'y and Parts List

Block No. M4MM

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■ Parts List (Cassette Mechanism Ass'y)

Block No. M4MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EGS-FB1011	MECHA. BASE	1		
	2	EGS-FD1053	CASSETTE SPRING	1		
	3	EGS-FC1004	SHIFT LEVER	1		
	4	EGS-FD1036	HEAD BASE ASSY	1		
	5	EGS-FD1024	HEAD PLATE ASSY	1		
	6	EGS-FD1005	LEAF SPRING	1		
	7	EGS-FC1003	SHIFT LEVER	1		
	8	EGS-FCS1043	LEVER PLATE	1		
	9	EGS-FCS1042	MOTOR BRACKET	1		
	10	EGS-FD2023	COLLAR	1		
	12	EGS-FD2002	COLLAR	1		
	21	EGS-FD3018	CLUTCH GEAR	1		
	22	EGS-FD3015	REW GEAR	1		
	23	EGS-FD3016	F.R. ARM	1		
	24	EGS-FD3017	CAM GEAR	2		
	25	EGS-FD3014	REEL DISK	2		
	26	EGS-FC3037	REEL CAP	2		
	27	EGS-FDS3029	REEL CAP	2		
	28	EGS-FD3010	RELEASE ARM	1		
	32	EGS-FD3009	SHIFT LEVER	1		
	33	EGS-FC3002	CAM GEAR	1		
	34	EGS-FC3003	ACTION LEVER	1		
	35	EGS-FC3004	STOPPER ARM	1		
	37	EGS-PD3034	CAM GEAR	1		
	38	EGS-PD3033	TURN GEAR	1		
	39	EGS-FD3027	CASSETTE GUIDE	1		
	42	EGS-FC3008	STOPPER ARM	1		
	43	EGS-FC5013	FLYWHEEL RD (HK) ASSY	1		
	44	EGS-FDS5011	FLYWHEEL LD	1		
	48	EGS-FD5006	ROLLER ARM	1		
	49	EGS-FD5002	ROLLER ARM	1		
	50	EGS-PD6055	TORSHON SPRING	1		
	51	EGS-FD6023	REEL SPRING	2		
	53	EGS-FD6031	TORSHON SPRING	1		
	55	EGS-FD6002	TORSHON SPRING	1		
	56	EGS-FD6022	SHIFT LEVER SELECT SPRING	1		
	57	EGS-FD6005	TRIGGER ARM SPRING	1		
	58	EGS-FD6019	TORSHON SPRING	1		
	59	EGS-FD6018	TORSHON SPRING	1		
	60	EGS-FD6007	TORSHON SPRING	1		
	61	EGS-FD6008	TORSHON SPRING	1		
	62	EGS-FD6003	TORSHON	1		
	65	EGS-ED8002	POLYSLIDER WASHER	2		
	66	EGS-FD8002	REFLECT SEAL	1		
	68	EGS-FD80360	AZIMUTH SCREW	2		
	69	EGS-PD8011	SPACER	1		
	70	EGS-ZD8725	HEAD SCREW	2		
	71	EGS-FCS9054	PRINTED BOARD	1		
	72	EGS-PD9058	I.C. (PH.SENSOR)	1		
	73	QRD161J-152	CARBON RESISTER	1		
	74	EGS-8341118065	POLYSLIDER WASHER	1		
	75	EGS-8342123076	POLYSLIDER WASHER	1		
	76	EGS-FD8015	REEL FELT	2		

■ Parts List (Cassette Mechanism Ass'y)

Block No. M4MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	77	EGS-8541335018	LUMILER WASHER	1		
	78	EGS-8342121014	POLYSLIDER WASHER	3		
	79	EGS-8341116591	POLYSLIDER WASHER	1		
	80	EGS-94019090	LEAF SWITCH	3		
	81	EGS-94019087	LEAF SWITCH	1		
	82	EGS-FD9042	SOLENOID ASSY	1		
	83	EGS-FD9052	FLAT WIRE	1	4PIN	
	84	EGS-FD90553	FLAT WIRE	1	15PIN	
	85	EGS-FD9073	SOCKET WIRE ASSY	1	6PIN	
	86	EGS-E40424405	CONNECT TERMINAL	1		
	87	EGS-8340421023	NYLON WASHER	1		
	88	834-0419-002	NYLON WASHER	1		
	90	EGS-92070222	HEAD	1		
	91	8113112004	SCREW	5		
	92	SPST2006Z	SCREW	1		
	93	EGS-8114112006	SCREW	5		
	94	EGS-FD8023	POWER LOCK SCREW	1		
	95	EGSD8511	MOTOR SCREW	3		
	97	EGS-FD9040	LEAF SWITCH	2		
	99	EGS-FC3055	MECHA. BASE	1		
	100	EGS-FD3030	P.ROLLER ASSY	1		
	101	EGS-FD3031	P.ROLLER ASSY	1		
	102	EGS-FD3032	CAM GEAR ASSY	1		
	105	EGS-FC9068	DRIVE MOTOR ASSY	1		
	106	EGS-FC3056	CLUTCH ASSY	1		
	109	EGS-FDS5014	PULLEY ASSY	1		
	111	EGS-8341113899	POLYSLIDER WASHER	2		
	112	EGS-PD6009	TAPE GUIDE SPRING	2		
	113	EGS-FCS3042	TAPE GUIDE	1		
	114	EGS-FCS3043	TAPE GUIDE	1		
	115	EGS-8540419025	NYLON WASHER	1		
	116	EGS-FD4008	DRIVE BELT	1		
	117	EGS-FD4009	DRIVE BELT	1		
	118	EGS-8342144593	POLYSLLIDER WASHER	1		
	119	EGS-FD4010	DRIVE BELT	1		
	121	EGS-FD8026	SPACER	1		
	122	EGS-FD8014	PROTECT SHEET	1		
	127	EGS-FD8022	BIND MACHINE SCREW	2		
	129	EGMD1270	WASHER	3		
	130	EGMD4002	MOTOR CUSHION	3		
	131	SPSP3003Z	SCREW	1		
	132	EGS-8114512608	SCREW	4		
	134	PU49485-3	CORD CLAMP	1		
	136	EGS-8341116095	POLY WASHER	1		
	137	SPST2004Z	SCREW	2		

■ Electrical Parts List (ENJ-099)

⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC502	NJM4558D-D	I.C(MONO-ANALOG)	
	IC541	HA12206NT	I.C(MONO-ANALOG)	
	IC561	HA12136A	I.C(MONO-ANALOG)	
	IC731	TC4052BP	I.C(DIGI-MOS)	
	IC732	NJM4580DD	I.C(MONO-ANALOG)	
	IC751	MN172412JAAZ	I.C(MICRO-COMPUTER)	
	IC752	MN1381(P,Q)TA	I.C(DIGI-MOS)	
	IC775	LB1641	I.C(DIGI-OTHER)	
		DIODEDS		
	D521	1SS133	SI.DIODE	
	D522	MTZ11JC	ZENER DIODE	
	D555	MTZ7.5JC	ZENER DIODE	
	D556	MTZ7.5JC	ZENER DIODE	
	D581	1SS133	SI.DIODE	
	D582	1SS133	SI.DIODE	
	D583	1SS133	SI.DIODE	
	D584	1SS133	SI.DIODE	
	D585	1SS133	SI.DIODE	
	D589	1SS133	SI.DIODE	
	D701	MTZ8.2JC	ZENER DIODE	
	D711	MTZ5.6JC	ZENER DIODE	
	D712	1SS133	SI.DIODE	
	D721	11E2	SI.DIODE	
	D731	MTZ7.5JC	ZENER DIODE	
	D732	MTZ7.5JC	ZENER DIODE	
	D751	1SS133	SI.DIODE	
	D760	1SS133	SI.DIODE	
	D761	1SS133	SI.DIODE	
	D762	1SS133	SI.DIODE	
	D763	1SS133	SI.DIODE	
	D764	1SS133	SI.DIODE	
	D781	SLR-342DCA47	L.E.D.	
	D782	SLR-342DCA47	L.E.D.	
	D783	SLR-342DCA47	L.E.D.	
	D784	SLR-342DCA47	L.E.D.	
	D785	SLR-342DCA47	L.E.D.	
	D786	SLR-342DCA47	L.E.D.	
	D787	SLR-342DCA47	L.E.D.	
	D788	SLR-342DCA47	L.E.D.	
	D789	SLR-342DCA47	L.E.D.	
	D790	SLR-342DCA47	L.E.D.	
	D791	SLR-342VC3F	L.E.D.	
	D792	SLR-342VC3F	L.E.D.	
	D793	SLR-342VC3F	L.E.D.	
		TRANSISTORS		
	Q521	2SC1740S(R,S)	SI.TRANSISTOR	
	Q522	2SC1740S(R,S)	SI.TRANSISTOR	
	Q523	2SC1740S(R,S)	SI.TRANSISTOR	
	Q524	2SC1740S(R,S)	SI.TRANSISTOR	
	Q525	2SC2060(Q,R)	SI.TRANSISTOR	
	Q581	2SK373(O,Y)	F.E.T.	
	Q582	2SK373(O,Y)	F.E.T.	
	Q583	KRA104M-T	DIGITAL TRANSISTOR	
	Q584	KRA104M-T	DIGITAL TRANSISTOR	
	Q585	2SD2144S(VW)	SI.TRANSISTOR	
	Q586	2SD2144S(VW)	SI.TRANSISTOR	
	Q701	2SD2037(E,F)	SI.TRANSISTOR	
	Q711	2SC2060(Q,R)	SI.TRANSISTOR	
	Q712	2SB1565(E,F)	SI.TRANSISTOR	
	Q713	KRC102M-T	DIGITAL TRANSISTOR	
	Q715	2SD2144S(VW)	SI.TRANSISTOR	
	Q716	2SD2144S(VW)	SI.TRANSISTOR	
	Q717	KRA104M-T	DIGITAL TRANSISTOR	
	Q721	2SC1741AS(QR)	SI.TRANSISTOR	
	Q723	2SD400MP(E,F)	SI.TRANSISTOR	
	Q724	KRC104M-T	DIGITAL TRANSISTOR	
	Q731	2SD2144S(VW)	SI.TRANSISTOR	
	Q732	2SD2144S(VW)	SI.TRANSISTOR	

⚠	Item	Parts Number	Description	Area
	Q733	KRA104M-T	DIGITAL TRANSISTOR	
	Q781	KRC102M-T	DIGITAL TRANSISTOR	
	Q782	KRC102M-T	DIGITAL TRANSISTOR	
	Q783	KRC102M-T	DIGITAL TRANSISTOR	
	Q784	KRC102M-T	DIGITAL TRANSISTOR	
	Q785	KRC102M-T	DIGITAL TRANSISTOR	
		CAPACITORS		
	C501	QCBB1HK-331Y	330PF 50V CER.CAP.	
	C502	QCBB1HK-331Y	330PF 50V CER.CAP.	
	C503	QCGB1HK-102Y	1000PF 50V C.CAP.	
	C504	QCGB1HK-102Y	1000PF 50V C.CAP.	
	C505	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C506	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C507	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C508	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C509	QETC1AM-107ZN	100MF 10V E.CAP.	
	C510	QETC1AM-107ZN	100MF 10V E.CAP.	
	C511	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C512	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C513	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C514	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C515	QETB1CM-476	47MF 16V AL E.CAP.	
	C516	QETB1CM-476	47MF 16V AL E.CAP.	
	C521	QETB1HM-105	1MF 50V AL E.CAP.	
	C522	QFLB1HJ-682	6800PF 50V MYLAR CAP.	
	C523	QFLB1HJ-332	3300PF 50V MYLAR CAP.	
	C524	QFLB1HJ-332	3300PF 50V MYLAR CAP.	
	C525	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C526	QETB1HM-105	1MF 50V AL E.CAP.	
	C527	QETB1EM-106	10MF 25V AL E.CAP.	
	C528	QETB1CM-107	100MF 16V AL E.CAP.	
	C530	QFP31HJ-472Z	4700PF 50V POLYPROPY.FILM	
	C531	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C532	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C533	QETB1CM-226	22MF 16V E.CAP.	
	C534	QETB1EM-106	10MF 25V AL E.CAP.	
	C535	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C536	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C541	QFLB1HJ-472	4700PF 50V MYLAR CAP.	
	C542	QFLB1HJ-472	4700PF 50V MYLAR CAP.	
	C543	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C544	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C545	QFV81HJ-104	0.1MF 50V THIN FILM CAP.	
	C546	QFV81HJ-104	0.1MF 50V THIN FILM CAP.	
	C547	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C548	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C551	QCBB1HK-821Y	820PF 50V CER.CAP.	
	C552	QETB1HM-474	0.47MF 50V E.CAP.	
	C553	QETB1CM-476	47MF 16V AL E.CAP.	
	C555	QETB1CM-476	47MF 16V AL E.CAP.	
	C556	QETB1CM-476	47MF 16V AL E.CAP.	
	C557	QCXB1CM-472Y	4700PF 16V CER.CAP.	
	C558	QCXB1CM-472Y	4700PF 16V CER.CAP.	
	C561	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C562	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C565	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C566	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C567	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C568	QETB1HM-225	2.2MF 50V AL E.CAP.	
	C571	QFV81HJ-224	0.22MF 50V THIN FILM CAP.	
	C572	QFV81HJ-224	0.22MF 50V THIN FILM CAP.	
	C573	QETB1HM-226E	22MF 50V E.CAP.	
	C574	QETB1HM-226E	22MF 50V E.CAP.	
	C575	QETB1HM-475E	4.7MF 50V E.CAP.	
	C576	QETB1CM-476	47MF 16V AL E.CAP.	
	C577	QETB1CM-226	22MF 16V E.CAP.	
	C581	QETB1CM-107	100MF 16V AL E.CAP.	
	C701	QETB1CM-226	22MF 16V E.CAP.	
	C702	QETB1AM-108	1000MF 10V E.CAP.	

■ Electrical Parts List (ENJ-099)

⚠	Item	Parts Number	Description	Area
	C703	QCF21HP-103A	0.01MF 50V CER. CAP.	
	C711	QETB0JM-107	100MF 6.3V AL E. CAP.	
	C712	QCF21HP-103A	0.01MF 50V CER. CAP.	
	C713	QETB1AM-226	22MF 10V E. CAP.	
	C731	QETB1EM-476	47MF 25V AL E. CAP.	
	C732	QETB1EM-476	47MF 25V AL E. CAP.	
	C733	QCY31HK-472Z	4700PF 50V CER. CAP.	
	C734	QCY31HK-472Z	4700PF 50V CER. CAP.	
	C735	QCY31HK-821Z	820PF 50V CER. CAP.	
	C736	QCY31HK-821Z	820PF 50V CER. CAP.	
	C737	EETB1HM-105E	1MF 50V E. CAP.	
	C738	EETB1HM-105E	1MF 50V E. CAP.	
	C745	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C746	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C751	QETB1CM-476	47MF 16V AL E. CAP.	
	C752	QCZ0202-155	1.5MF 25V CER. RES.	
	C753	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C754	QETB0JM-107	100MF 6.3V AL E. CAP.	
	C755	QCBB1HK-331Y	330PF 50V CER. CAP.	
	C756	QCBB1HK-101Y	100PF 50V CER. CAP.	
	C757	QCXB1CM-562Y	5600PF 16V CER. CAP.	
	C775	QETB1AM-477	470MF 10V E. CAP.	
	C776	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C777	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C781	QFV81HJ-104	0.1MF 50V THIN FILM CAP.	
	C793	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C799	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
		RESISTORS		
	R501	QRD161J-100	10 1/6W CARBON RES.	
	R502	QRD161J-100	10 1/6W CARBON RES.	
	R503	QRD161J-104	100K 1/6W CARBON RES.	
	R504	QRD161J-104	100K 1/6W CARBON RES.	
	R505	QRD161J-221	220 1/6W CARBON RES.	
	R506	QRD161J-221	220 1/6W CARBON RES.	
	R507	QRD161J-224	220K 1/6W CARBON RES.	
	R508	QRD161J-224	220K 1/6W CARBON RES.	
	R509	QRD161J-183	18K 1/6W CARBON RES.	
	R510	QRD161J-183	18K 1/6W CARBON RES.	
	R511	QRD161J-221	220 1/6W CARBON RES.	
	R512	QRD161J-221	220 1/6W CARBON RES.	
	R521	QRD161J-222	2.2K 1/6W CARBON RES.	
	R522	QRD167J-332	3.3K 1/6W CARBON RES.	
	R523	QRD161J-104	100K 1/6W CARBON RES.	
	R524	QRD161J-181	180 1/6W CARBON RES.	
	R525	QRD167J-511	510 1/6W CARBON RES.	
	R526	QRD161J-561	560 1/6W CARBON RES.	
	R527	QRD161J-393	39K 1/6W CARBON RES.	
	R528	QRD161J-393	39K 1/6W CARBON RES.	
	R529	QRD14CJ-6R8SX	6.8 1/4W UNF. CARBON R	
	R531	QRD161J-101	100 1/6W CARBON RES.	
⚠	R532	QRD14CJ-100SX	10 1/4W UNF. CARBON R	J
⚠	R532	QRZ0077-100	10 1/4W FUSIBLE RES.	Except J
	R535	QRD167J-153	15K 1/6W CARBON RES.	
	R536	QRD167J-153	15K 1/6W CARBON RES.	
	R541	QRD161J-333	33K 1/6W CARBON RES.	
	R542	QRD161J-333	33K 1/6W CARBON RES.	
	R543	QRD161J-242	2.4K 1/6W CARBON RES.	
	R544	QRD161J-242	2.4K 1/6W CARBON RES.	
	R551	QRD161J-563	56K 1/6W CARBON RES.	
	R552	QRD161J-184	180K 1/6W CARBON RES.	
	R553	QRD161J-105	1M 1/6W CARBON RES.	
	R555	QRD161J-221	220 1/6W CARBON RES.	
	R556	QRD161J-221	220 1/6W CARBON RES.	
	R557	QRD161J-102	1K 1/6W CARBON RES.	
	R558	QRD161J-102	1K 1/6W CARBON RES.	
	R561	QRD167J-153	15K 1/6W CARBON RES.	
	R562	QRD167J-153	15K 1/6W CARBON RES.	
	R563	QRD167J-153	15K 1/6W CARBON RES.	
	R564	QRD167J-153	15K 1/6W CARBON RES.	

⚠	Item	Parts Number	Description	Area
	R565	QRD167J-153	15K 1/6W CARBON RES.	
	R566	QRD167J-153	15K 1/6W CARBON RES.	
	R567	QRD161J-681	680 1/6W CARBON RES.	
	R568	QRD161J-681	680 1/6W CARBON RES.	
	R569	QRD161J-183	18K 1/6W CARBON RES.	
	R570	QRD161J-103	10K 1/6W CARBON RES.	
	R571	QRD161J-183	18K 1/6W CARBON RES.	
⚠	R572	QRD14CJ-220S	22 1/4W UNF. CARBON R	
	R581	QRD161J-475	4.7M 1/6W CARBON RES.	
	R582	QRD161J-475	4.7M 1/6W CARBON RES.	
	R583	QRD161J-105	1M 1/6W CARBON RES.	
	R584	QRD161J-105	1M 1/6W CARBON RES.	
	R585	QRD161J-473	47K 1/6W CARBON RES.	
	R587	QRD161J-103	10K 1/6W CARBON RES.	
	R588	QRD161J-103	10K 1/6W CARBON RES.	
	R589	QRD161J-103	10K 1/6W CARBON RES.	
	R595	QRD167J-223	22K 1/6W CARBON RES.	
	R700	QRD161J-102	1K 1/6W CARBON RES.	
	R702	QRD161J-561	560 1/6W CARBON RES.	
	R703	QRD161J-221	220 1/6W CARBON RES.	
	R704	QRD161J-221	220 1/6W CARBON RES.	
⚠	R705	QRD12CJ-2R2SX	2.2 1/2W UNF. CARBON R	
	R706	QRD161J-221	220 1/6W CARBON RES.	
	R707	QRD161J-221	220 1/6W CARBON RES.	
	R708	QRD161J-221	220 1/6W CARBON RES.	
	R712	QRD167J-151	150 1/6W CARBON RES.	
	R713	QRD161J-103	10K 1/6W CARBON RES.	
	R714	QRD161J-471	470 1/6W CARBON RES.	
	R715	QRD161J-103	10K 1/6W CARBON RES.	
	R716	QRD161J-103	10K 1/6W CARBON RES.	
	R717	QRD161J-102	1K 1/6W CARBON RES.	
	R718	QRD161J-102	1K 1/6W CARBON RES.	
	R719	QRD161J-123	12K 1/6W CARBON RES.	
	R720	QRD161J-123	12K 1/6W CARBON RES.	
	R721	QRD161J-182	1.8K 1/6W CARBON RES.	
	R724	QRD161J-102	1K 1/6W CARBON RES.	
	R727	QRD161J-473	47K 1/6W CARBON RES.	
	R728	QRD161J-821	820 1/6W CARBON RES.	
	R729	QRD161J-473	47K 1/6W CARBON RES.	
	R731	QRD161J-471	470 1/6W CARBON RES.	
	R732	QRD161J-471	470 1/6W CARBON RES.	
	R737	QRD161J-222	2.2K 1/6W CARBON RES.	
	R738	QRD161J-222	2.2K 1/6W CARBON RES.	
	R739	QRD161J-222	2.2K 1/6W CARBON RES.	
	R740	QRD161J-222	2.2K 1/6W CARBON RES.	
	R741	QRD161J-104	100K 1/6W CARBON RES.	
	R742	QRD161J-104	100K 1/6W CARBON RES.	
	R743	QRD161J-221	220 1/6W CARBON RES.	
	R744	QRD161J-221	220 1/6W CARBON RES.	
	R745	QRD161J-271	270 1/6W CARBON RES.	
	R746	QRD161J-271	270 1/6W CARBON RES.	
	R747	QRD161J-103	10K 1/6W CARBON RES.	
	R748	QRD161J-103	10K 1/6W CARBON RES.	
	R751	QRD161J-105	1M 1/6W CARBON RES.	
	R752	QRD161J-821	820 1/6W CARBON RES.	
	R754	QRD161J-221	220 1/6W CARBON RES.	
	R755	QRD161J-221	220 1/6W CARBON RES.	
	R756	QRD161J-221	220 1/6W CARBON RES.	
	R757	QRD161J-221	220 1/6W CARBON RES.	
	R758	QRD161J-221	220 1/6W CARBON RES.	
	R761	QRD161J-472	4.7K 1/6W CARBON RES.	
	R762	QRD161J-472	4.7K 1/6W CARBON RES.	
	R763	QRD161J-472	4.7K 1/6W CARBON RES.	
	R764	QRD161J-472	4.7K 1/6W CARBON RES.	
	R765	QRD161J-472	4.7K 1/6W CARBON RES.	
	R766	QRD161J-102	1K 1/6W CARBON RES.	
	R767	QRD161J-103	10K 1/6W CARBON RES.	
	R768	QRD161J-103	10K 1/6W CARBON RES.	
	R769	QRD161J-103	10K 1/6W CARBON RES.	

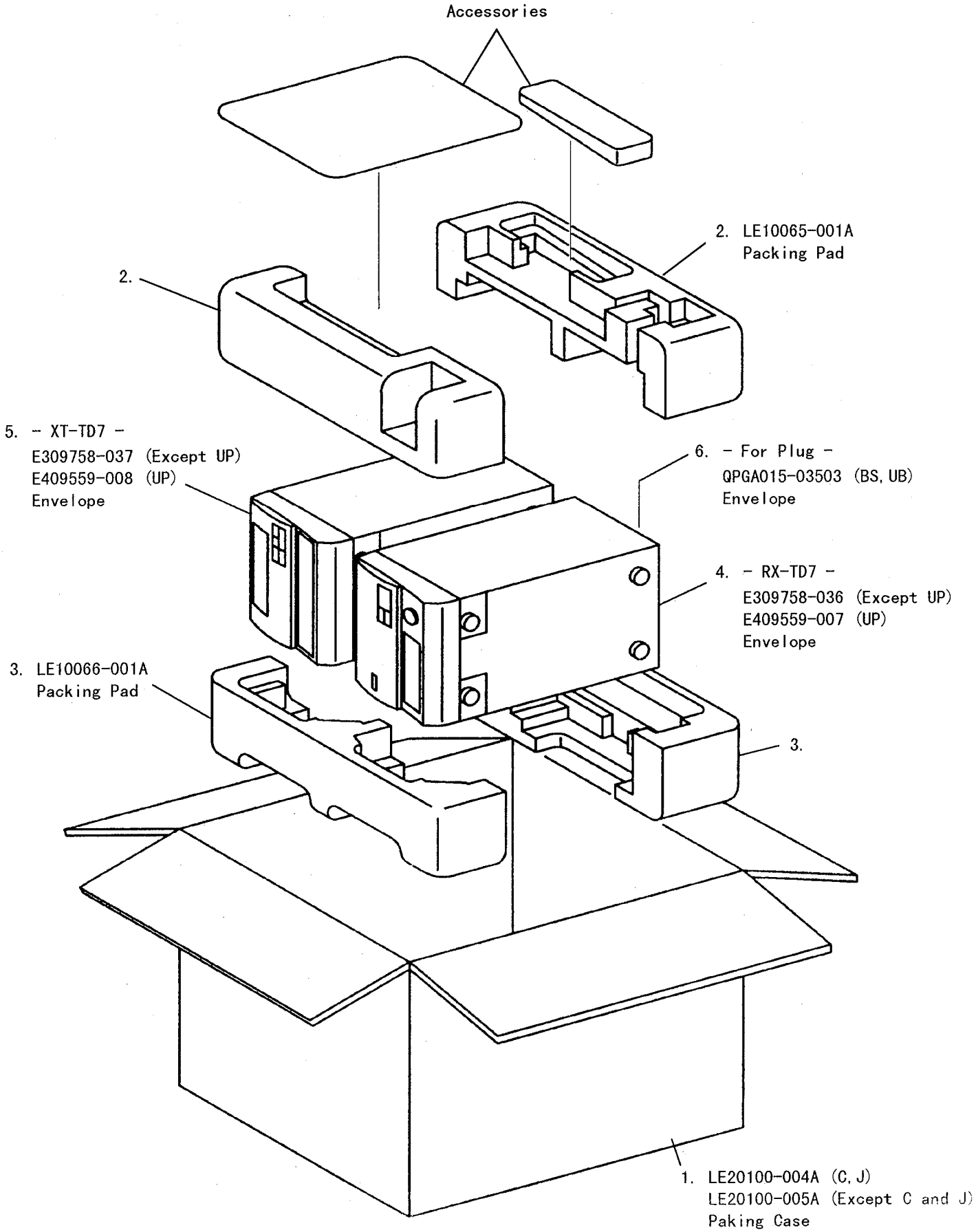
■ Electrical Parts List (ENJ-099)

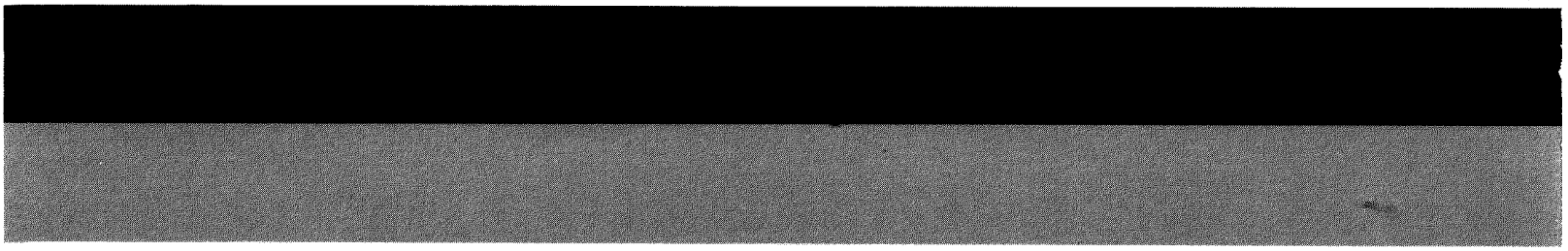
⚠	Item	Parts Number	Description	Area
	R770	QRD161J-103	10K 1/6W CARBON RES.	
	R771	QRD161J-472	4.7K 1/6W CARBON RES.	
	R772	QRD161J-472	4.7K 1/6W CARBON RES.	
	R773	QRD161J-103	10K 1/6W CARBON RES.	
	R774	QRD161J-103	10K 1/6W CARBON RES.	
	R775	QRD161J-222	2.2K 1/6W CARBON RES.	
	R776	QRD161J-392	3.9K 1/6W CARBON RES.	
	R777	QRD161J-103	10K 1/6W CARBON RES.	
	R778	QRD161J-103	10K 1/6W CARBON RES.	
	R779	QRD161J-103	10K 1/6W CARBON RES.	
	R780	QRD161J-103	10K 1/6W CARBON RES.	
	R781	QRD161J-271	270 1/6W CARBON RES.	
	R782	QRD161J-271	270 1/6W CARBON RES.	
	R783	QRD161J-271	270 1/6W CARBON RES.	
	R784	QRD161J-271	270 1/6W CARBON RES.	
	R785	QRD161J-271	270 1/6W CARBON RES.	
	R786	QRD161J-271	270 1/6W CARBON RES.	
	R787	QRD161J-271	270 1/6W CARBON RES.	
	R789	QRD161J-271	270 1/6W CARBON RES.	
	R791	QRD161J-271	270 1/6W CARBON RES.	
	R792	QRD161J-271	270 1/6W CARBON RES.	
	R793	QRD161J-271	270 1/6W CARBON RES.	
	VR501	QVPA603-104A	100K TRIMMER RES.	
	VR502	QVPA603-104A	100K TRIMMER RES.	
	VR503	QVPA603-501A	500 TRIMMER RES.	
	VR504	QVPA603-501A	500 TRIMMER RES.	
	VR531	QVPA603-104A	100K TRIMMER RES.	
	VR532	QVPA603-104A	100K TRIMMER RES.	
	VR561	QVPA603-503A	50K VARIABLE RES.	
	VR562	QVPA603-503A	50K VARIABLE RES.	
	VR722	QVPA603-222A	2.2K TRIMMER RES.	
		OTHERS		
		EMW10708-003	PRINTED BOARD	
	J781	TOTX178	OPTICAL JACK	
	K724	ENZ8101-007	INDUCTOR	
	K726	ENZ8101-007	INDUCTOR	
	L521	ENZ6002-012	OSCILLATOR COIL	
	L535	EQL2106-223	INDUCTOR	
	L536	EQL2106-223	INDUCTOR	
	S781	ESP0001-023M	TACT SWITCH	
	S782	ESP0001-023M	TACT SWITCH	
	S783	ESP0001-023M	TACT SWITCH	
	S784	ESP0001-023M	TACT SWITCH	
	S785	ESP0001-023M	TACT SWITCH	
	S786	ESP0001-023M	TACT SWITCH	
	S787	ESP0001-023M	TACT SWITCH	
	S788	ESP0001-023M	TACT SWITCH	
	S789	ESP0001-023M	TACT SWITCH	
	S790	ESP0001-023M	TACT SWITCH	
	S791	ESP0001-023M	TACT SWITCH	
	S792	ESP0001-023M	TACT SWITCH	
	S793	ESP0001-023M	TACT SWITCH	
	S794	ESP0001-023M	TACT SWITCH	
	S795	ESP0001-023M	TACT SWITCH	
	S796	ESP0001-023M	TACT SWITCH	
	S797	ESP0001-023M	TACT SWITCH	
	S798	ESP0001-023M	TACT SWITCH	
	X751	ECX0060-000EM	CERAMIC RESONATOR	
	CN501	EMV5109-006B	CONNECT TERMINAL	
	CN502	EMV7141-015	PIN CONNECTOR	
	CN503	VMC0314-S10	CONNECT TERMINAL	
	CN504	VMC0314-S16	CONNECT TERMINAL	
	CN513	VMC0314-P10	CONNECT TERMINAL	
	CN514	VMC0314-P16	CONNECT TERMINAL	
	CN614	VMC0041-003	CONNECTOR	
	CN615	EMV7171-111R	CONNECTOR	
	CN616	EMV7171-107R	CONNECTOR	
	CN701	EMV7141-017	CONNECT TERMINAL	
	CN702	VMC0314-P16	CONNECT TERMINAL	

⚠	Item	Parts Number	Description	Area
	CN703	EMV5109-005B	CONNECT TERMINAL	
	CN712	VMC0314-S16	CONNECT TERMINAL	
	CN781	EMV7171-119R	CONNECTOR	
	CN791	EMV7171-119	CONNECTOR	
⚠	CP701	ICP-N20	I.C.PROTECTOR	
	EP501	EMZ4002-002Z	EARTH PLATE	
	EP511	E409182-001SM	EARTH TERMINAL	
	EP512	E409182-001SM	EARTH TERMINAL	
	EP701	EMZ4002-002Z	EARTH PLATE	
	EP702	EMZ4002-002Z	EARTH PLATE	
	EP703	EMZ4002-002Z	EARTH PLATE	
	EP711	EMZ4002-002Z	EARTH PLATE	
	EP712	EMZ4002-002Z	EARTH PLATE	
	EP713	EMZ4002-002Z	EARTH PLATE	
	EP811	E409182-001SM	EARTH TERMINAL	
	EP812	E409182-001SM	EARTH TERMINAL	
	FW781	EWR33D-20SS	FLAT WIRE	
	SP751	VYH7653-001	LEAF SPRING	

Packing Materials and Part Numbers

Block No. M 7 M M





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